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3.25.03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Confirmation No. 7022
Mitsuaki OSHIMA et al. : Docket No. 2000_1328
Serial No. 09/672,946 : Group Art Unit 2634
Filed September 29, 2000 : Examiner A. Le
COMMUNICATION SYSTEM :

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SUBMISSION OF FORMAL DRAWINGS

Assistant Commissioner for Patents,
Washington, D.C.

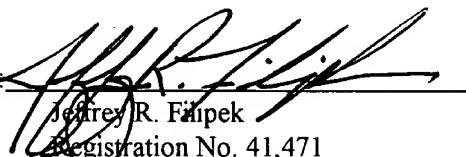
Sir:

As required by the Examiner in the Office Action mailed September 16, 2002, 178 sheets of formal (8½ x 11) drawings (Figs. 1-179) are submitted herewith.

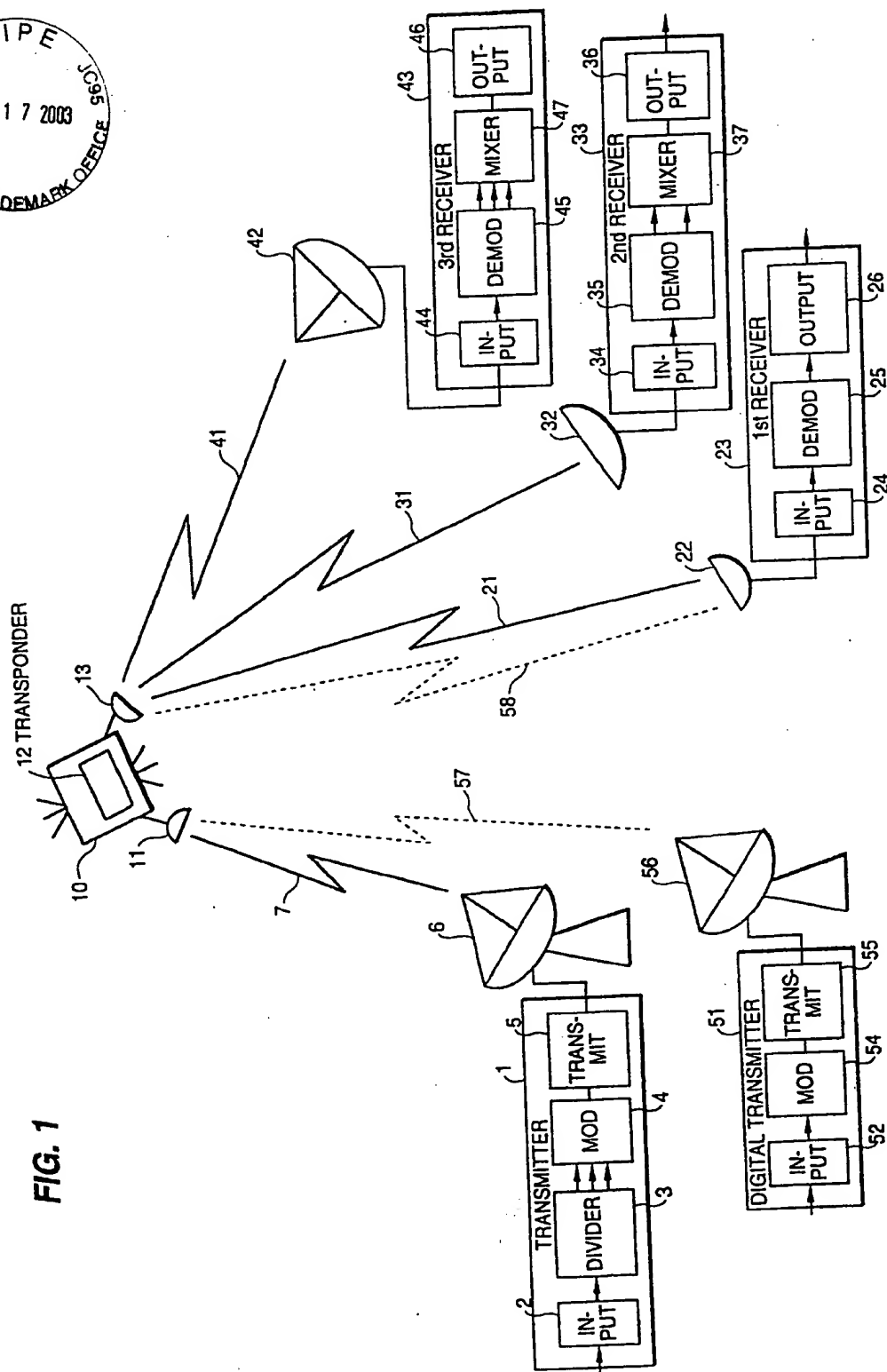
Respectfully submitted,

Mitsuaki OSHIMA et al.

By:


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March 17, 2003



TRANSMITTER

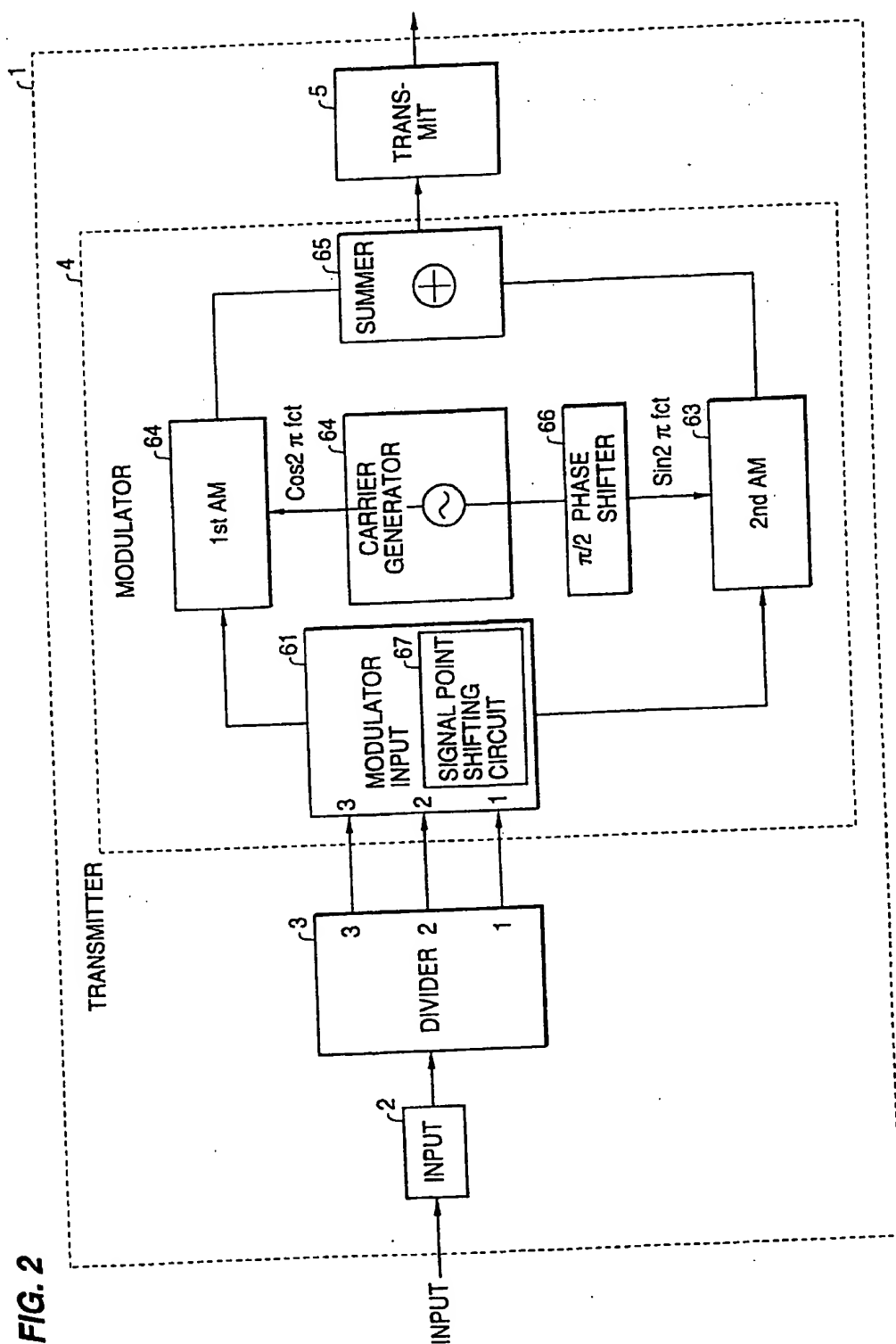




FIG. 3

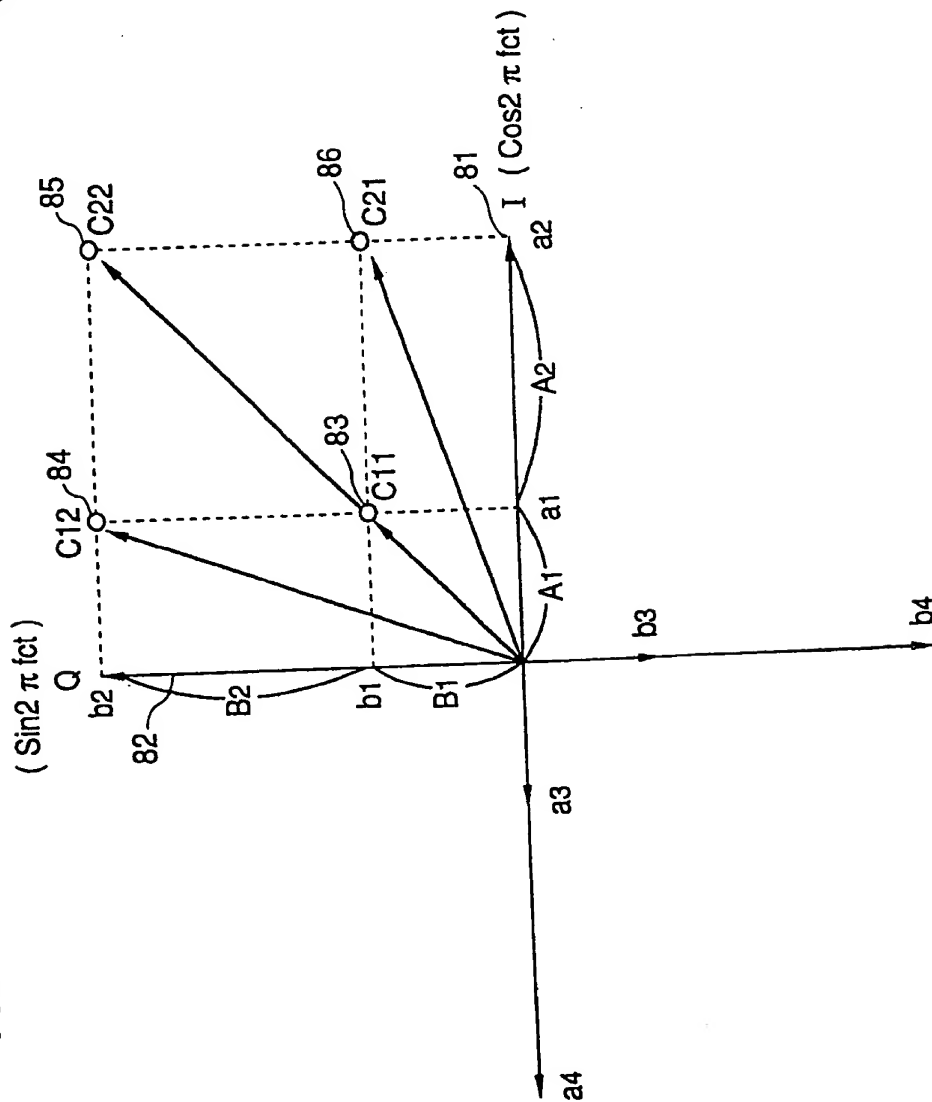




FIG. 4

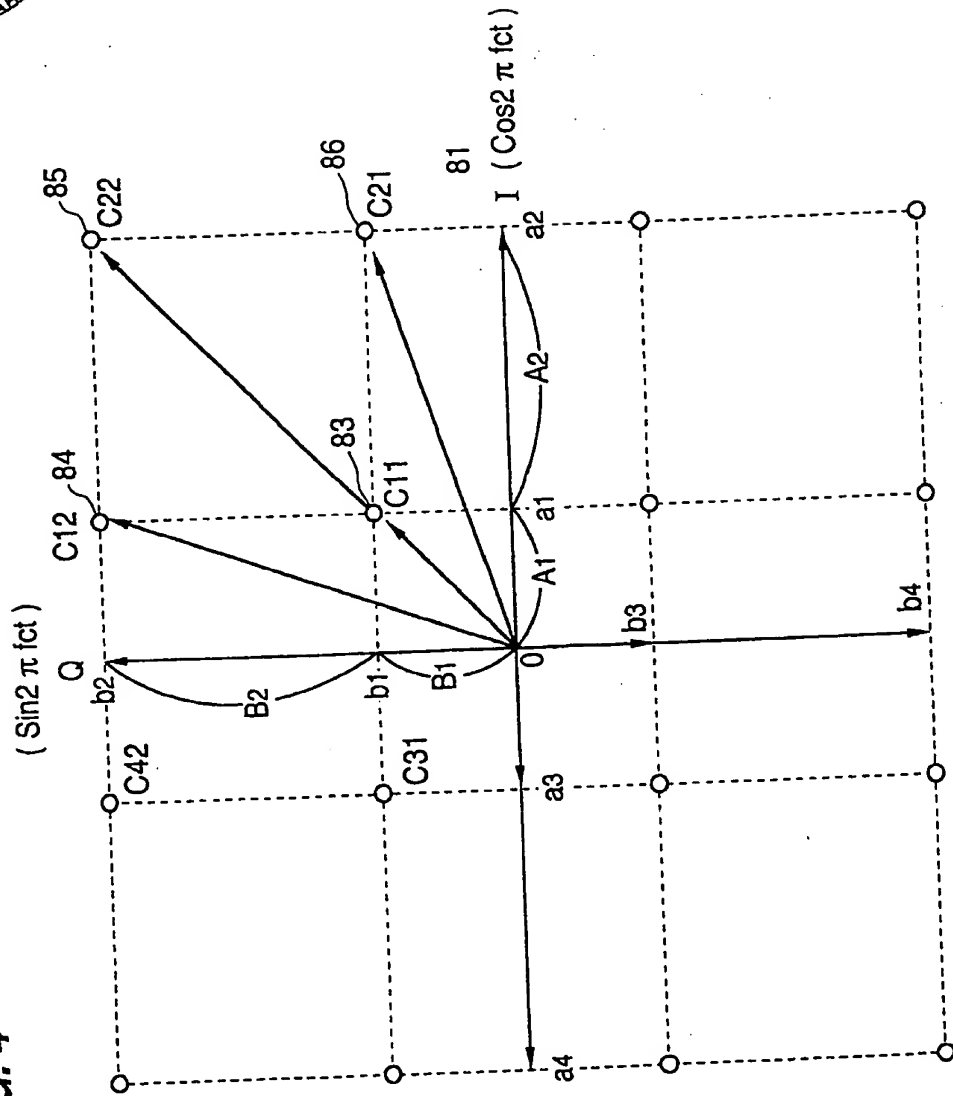




FIG. 5

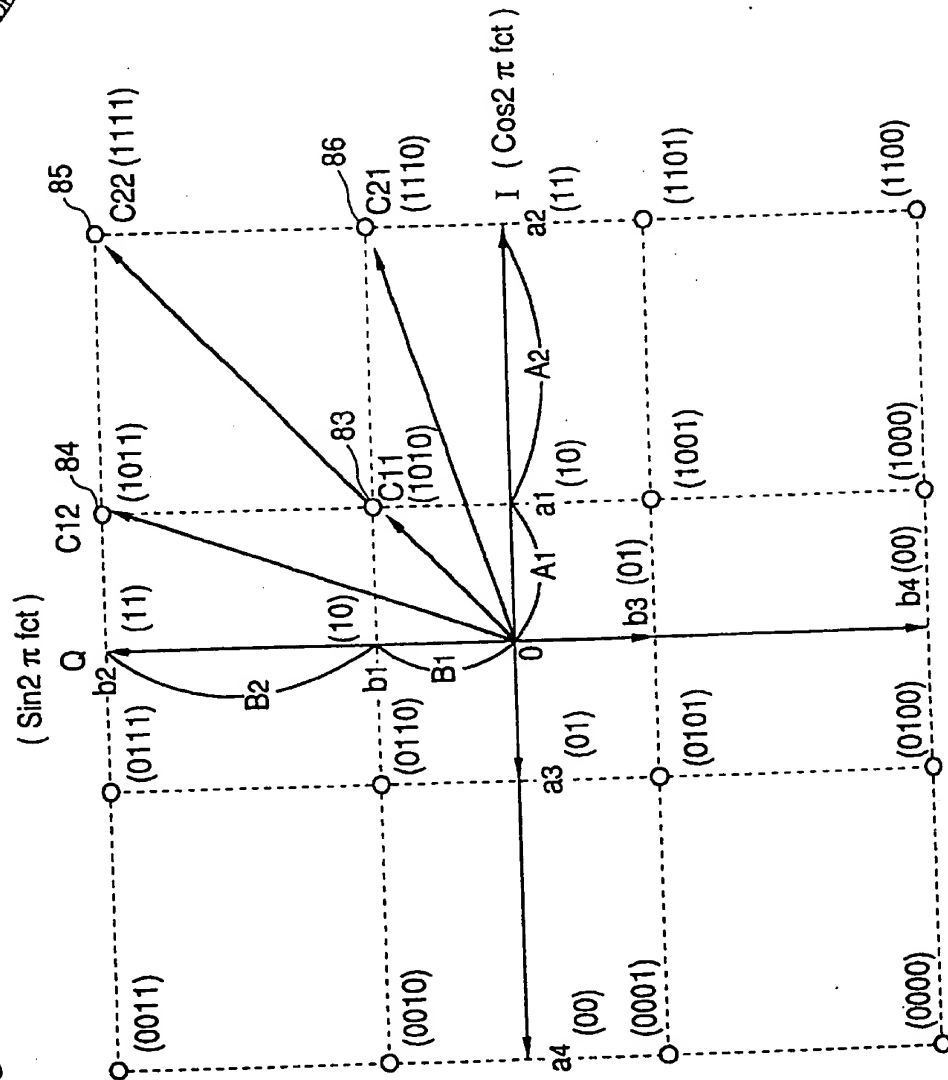




FIG. 6

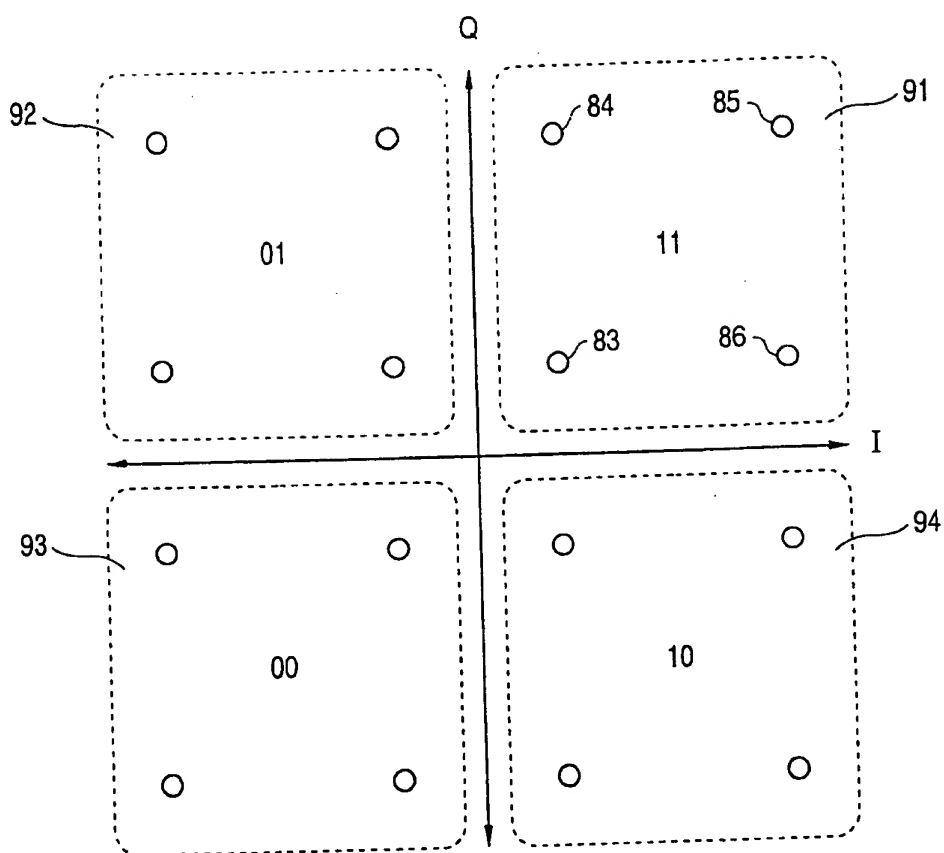


FIG. 7

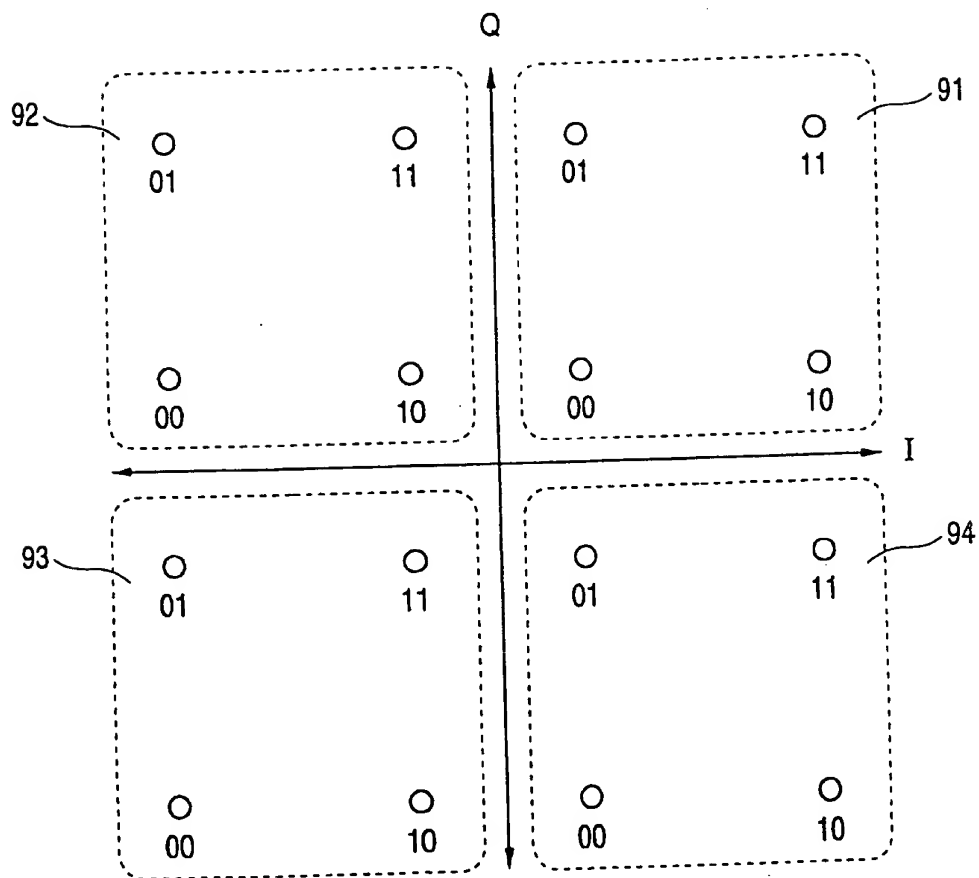


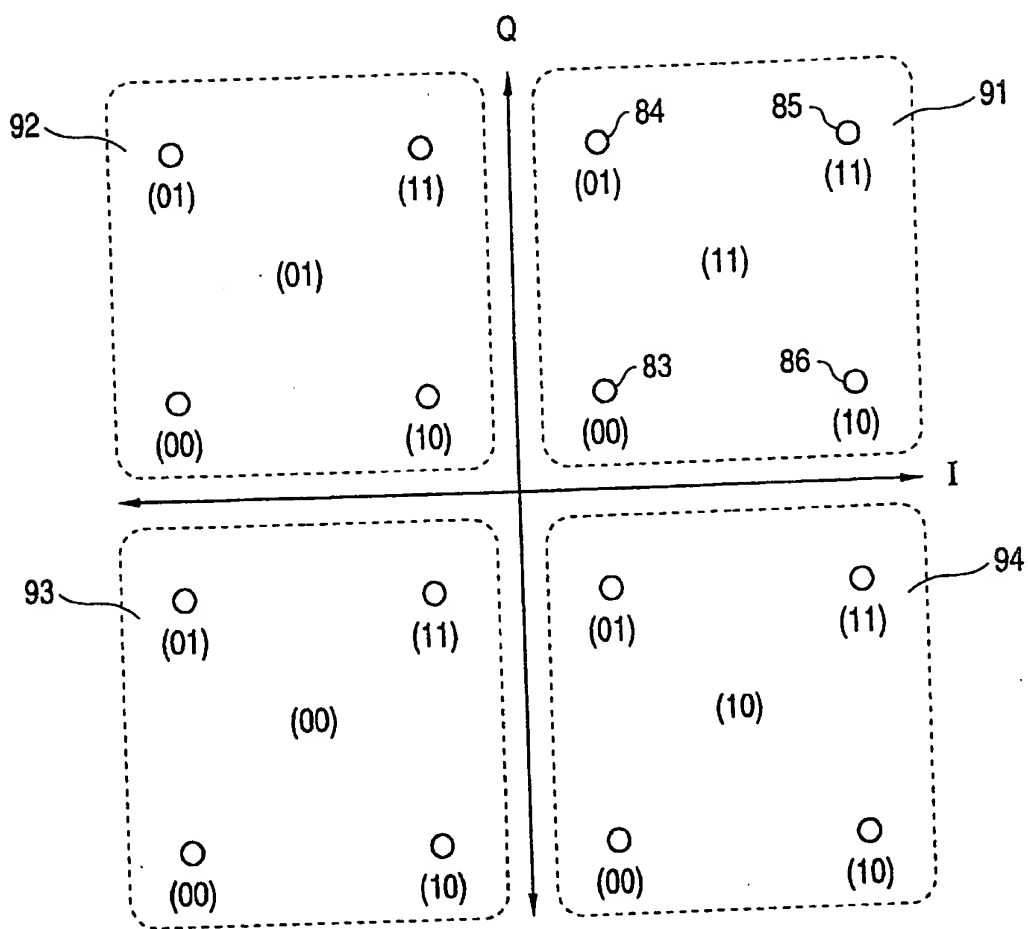
FIG. 8

FIG. 9

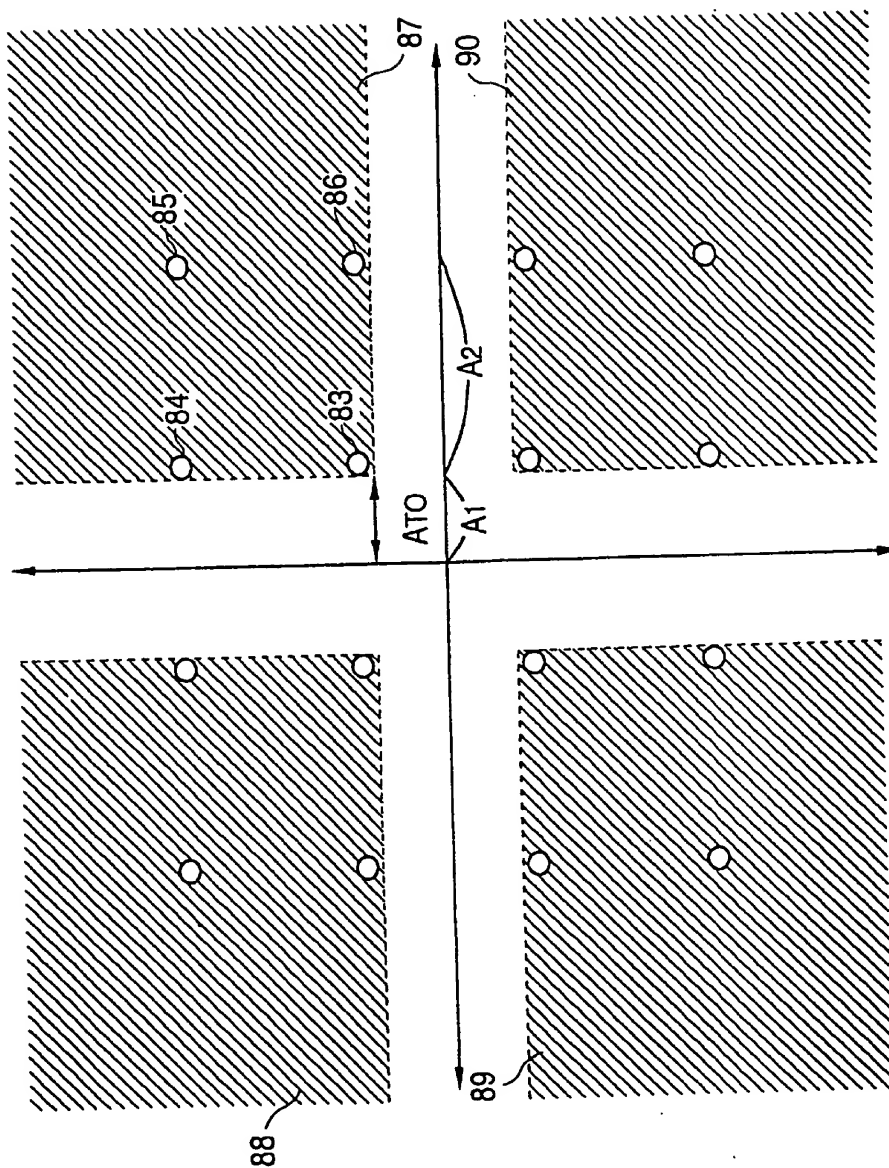


FIG. 10

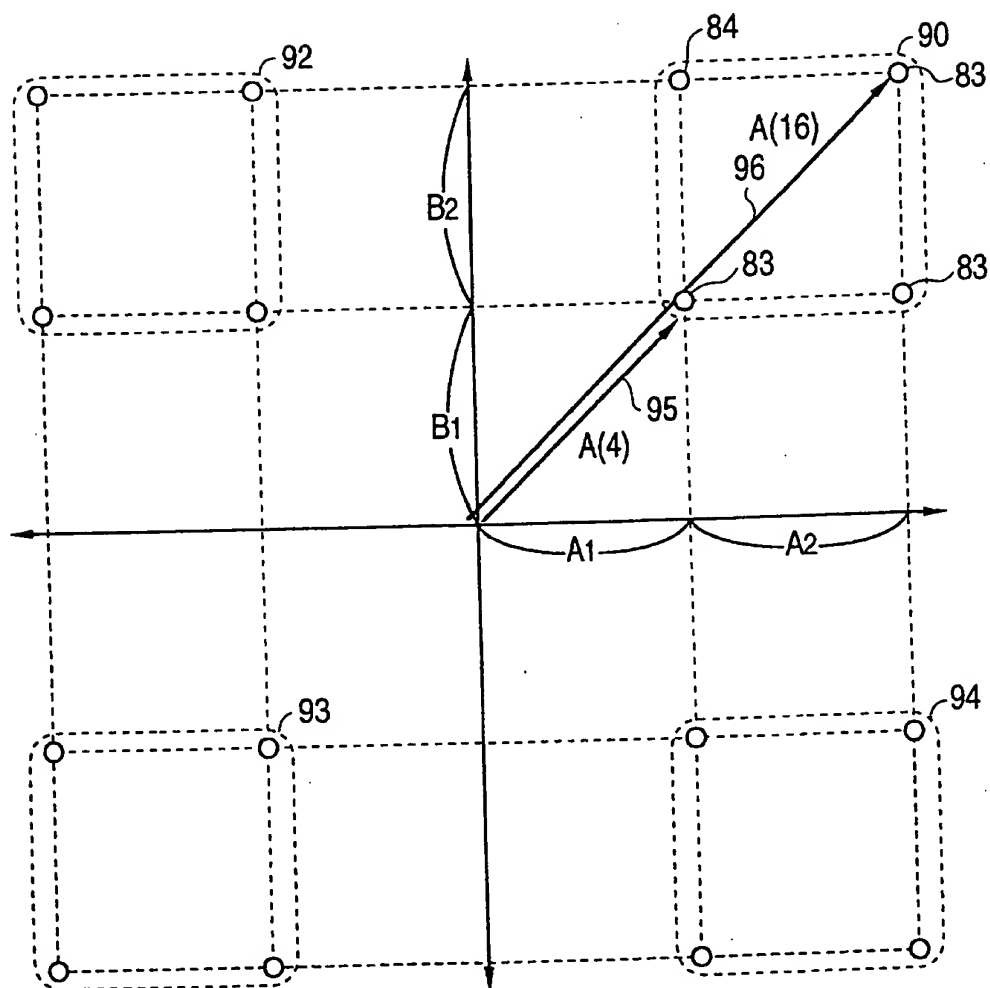


FIG. 11

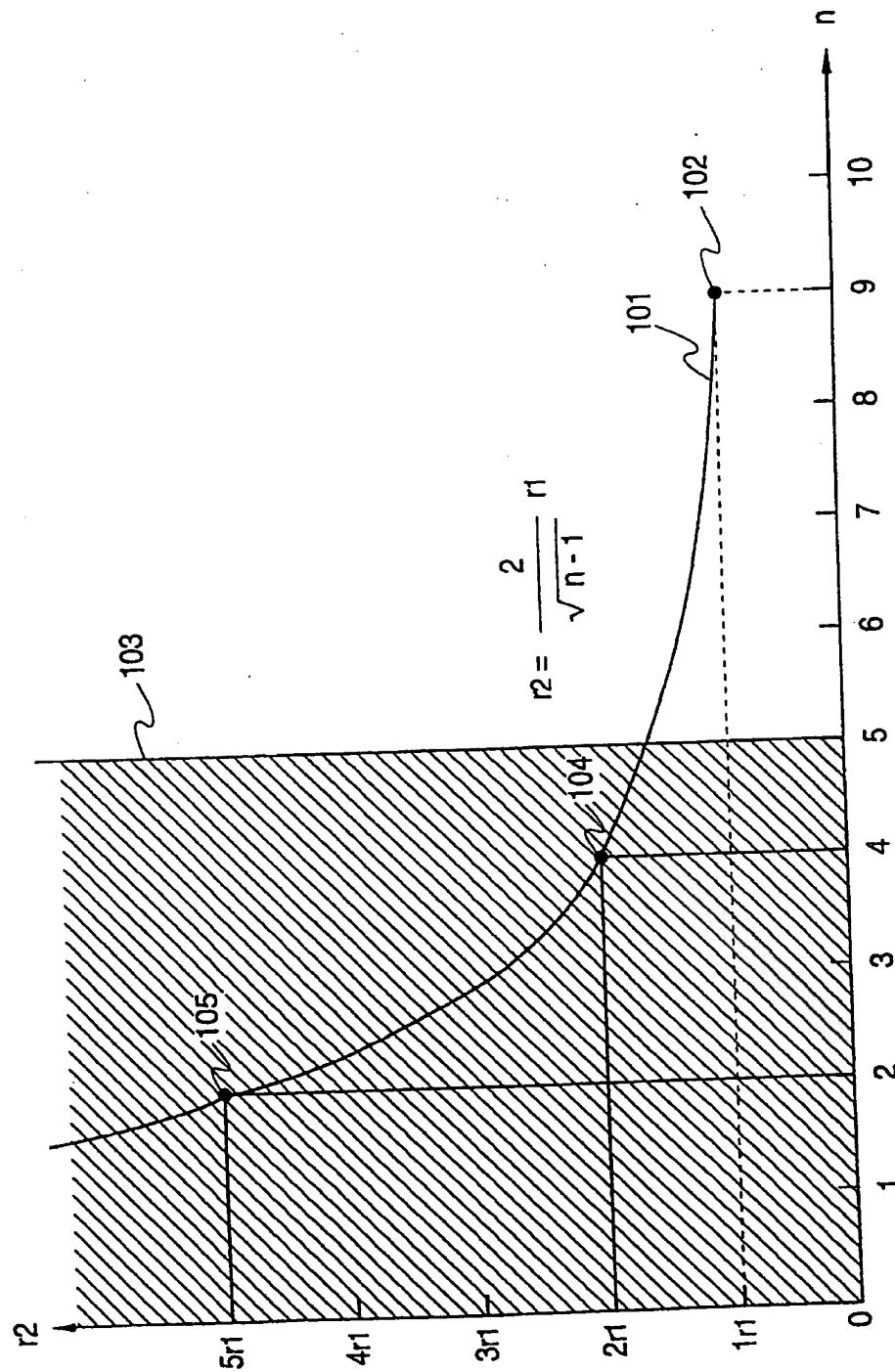


FIG. 12

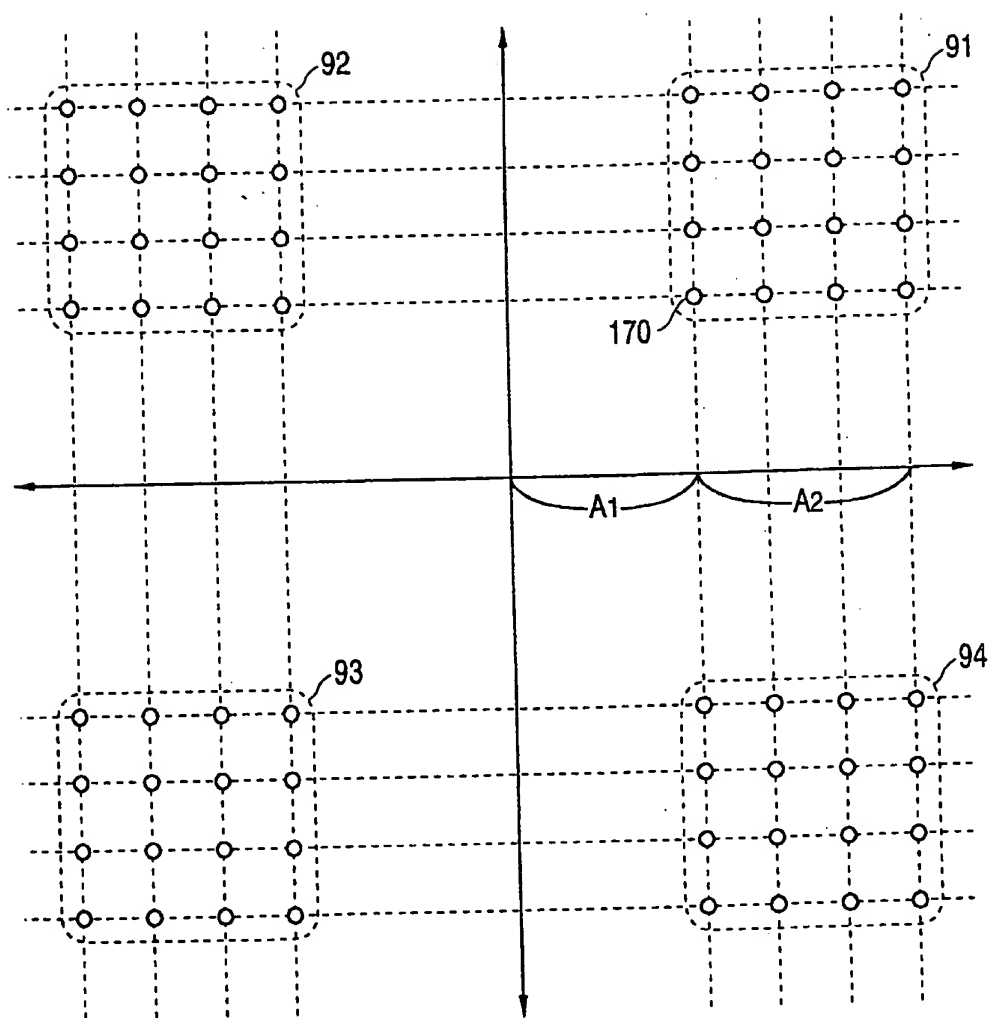


FIG. 13

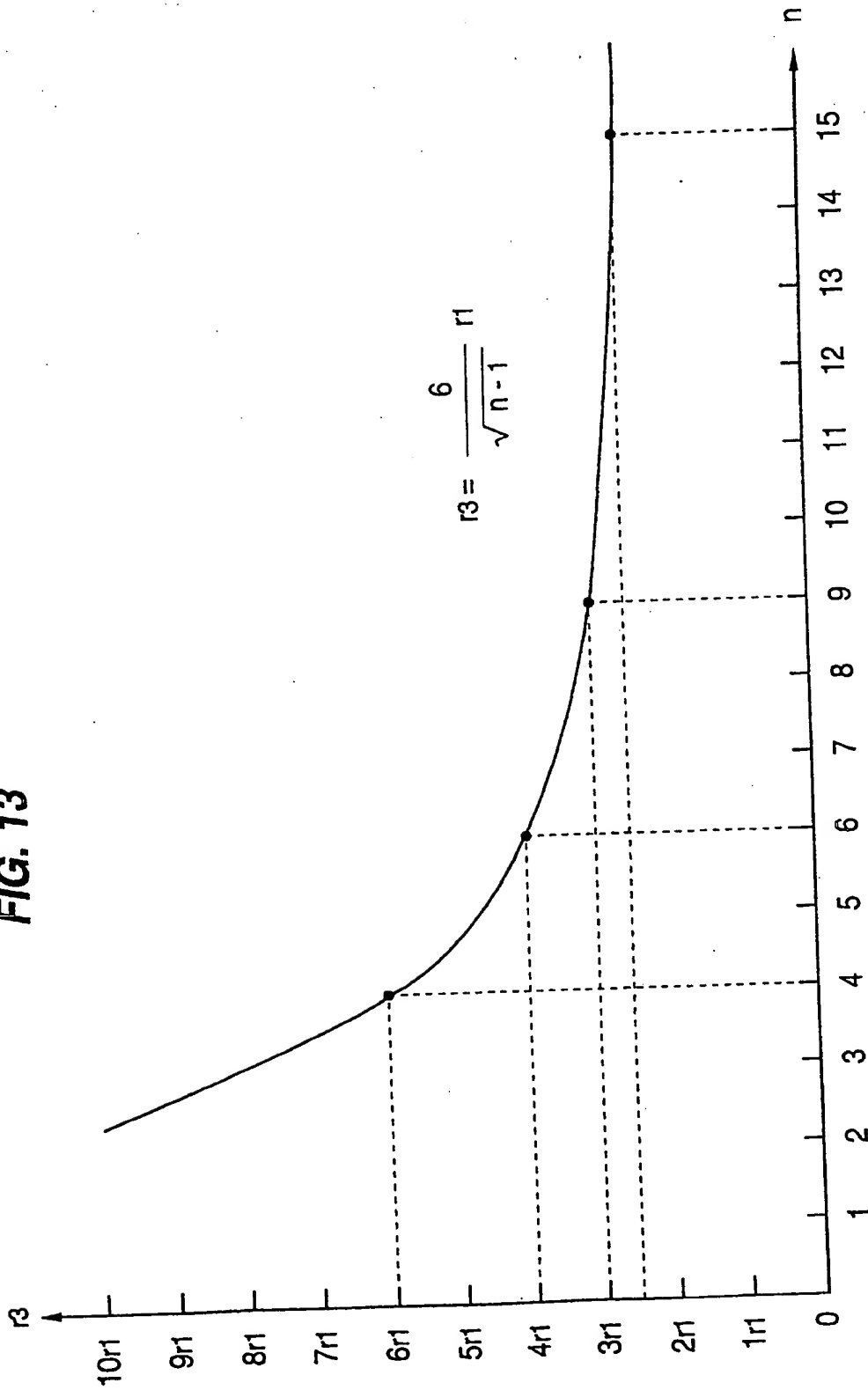


FIG. 14

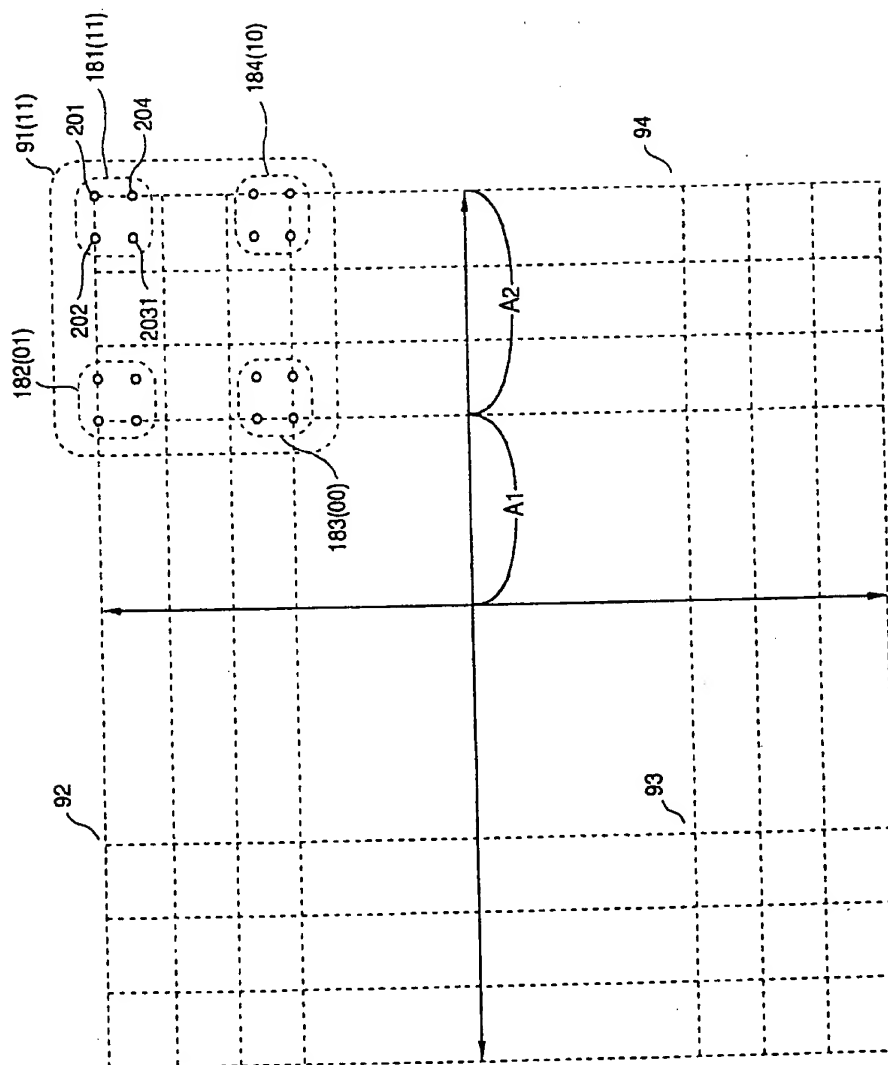


FIG. 15

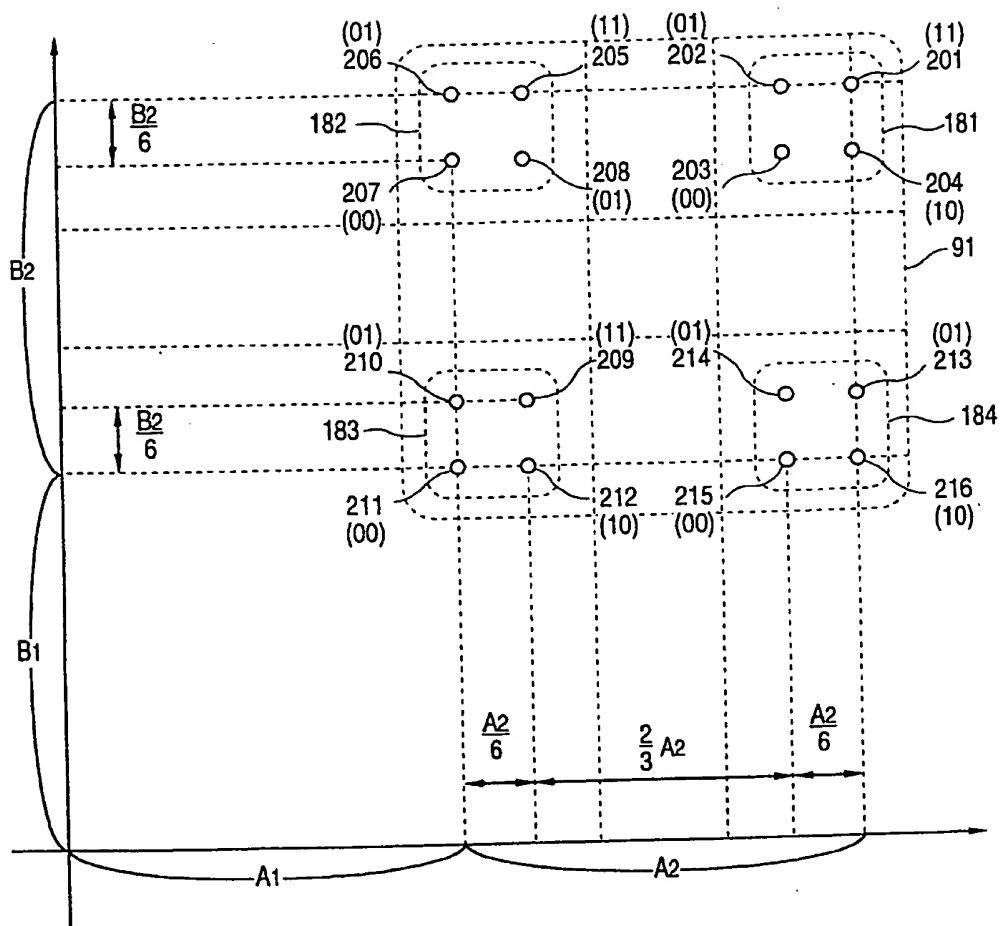


FIG. 16

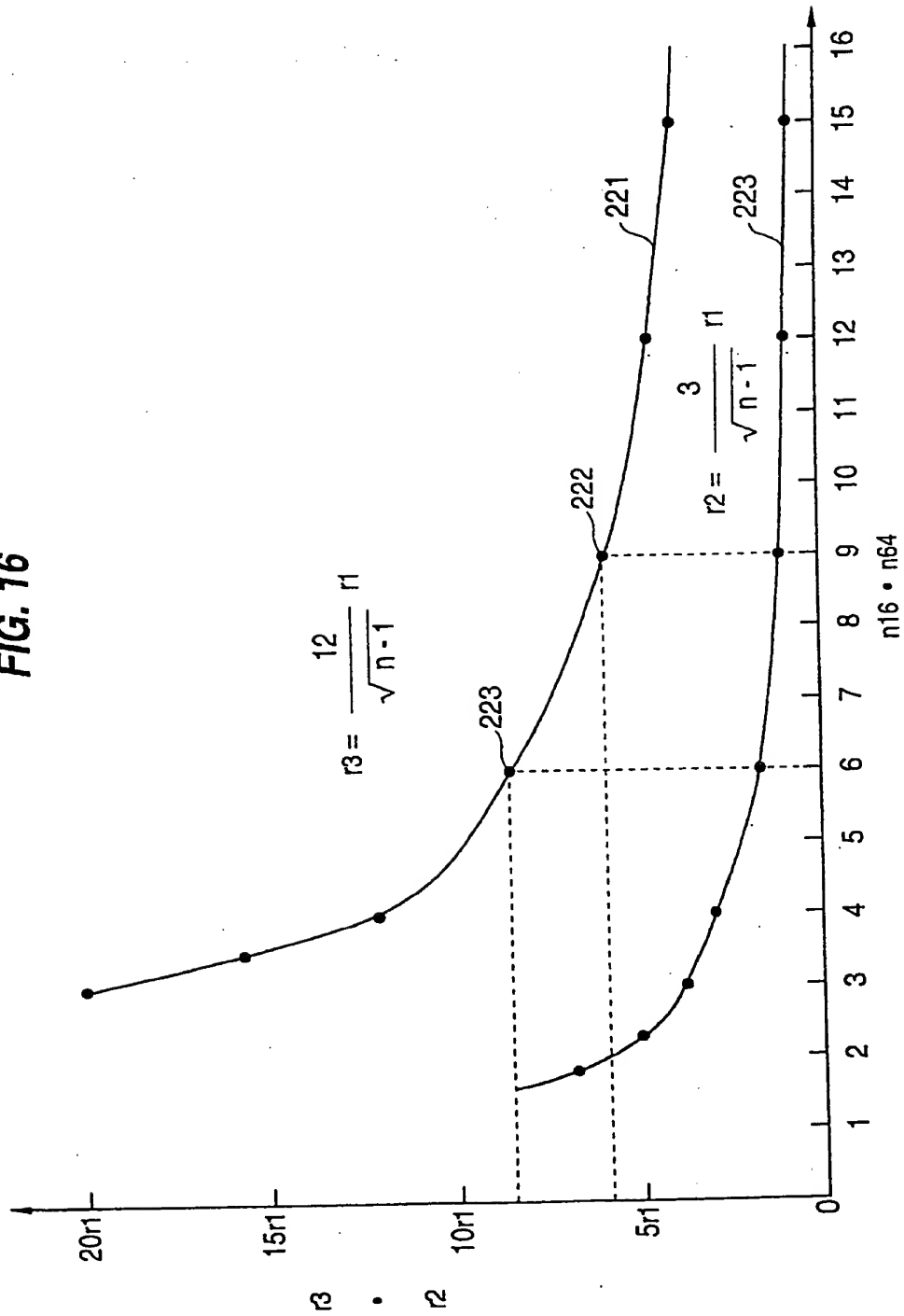


FIG. 17

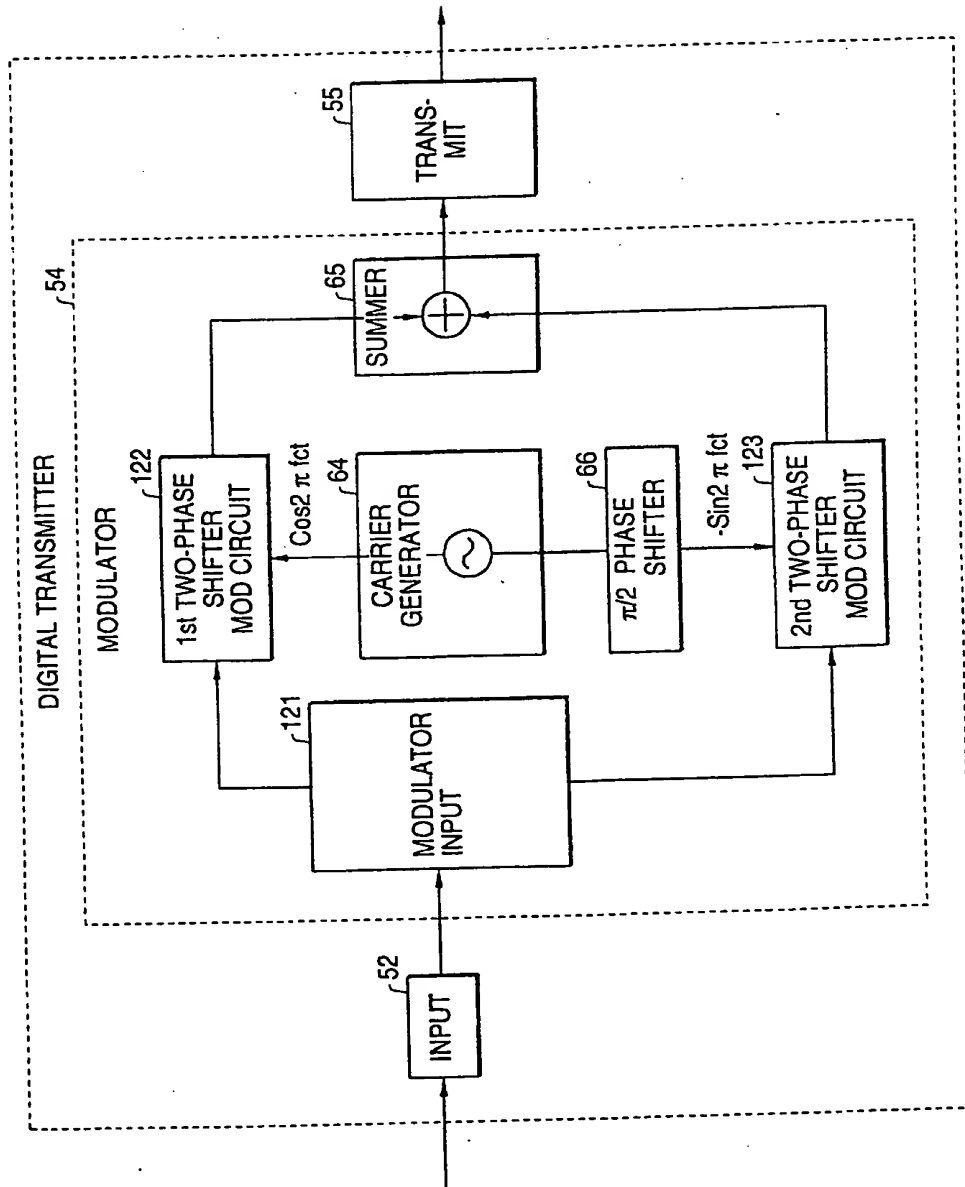


FIG. 18

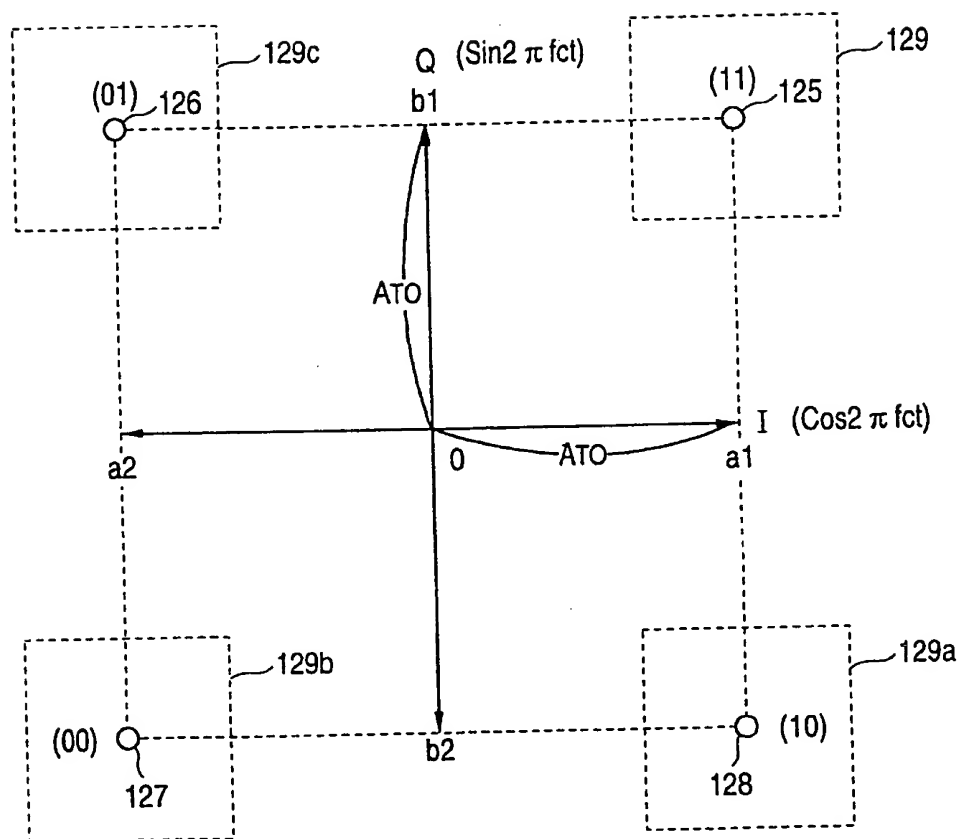


FIG. 19

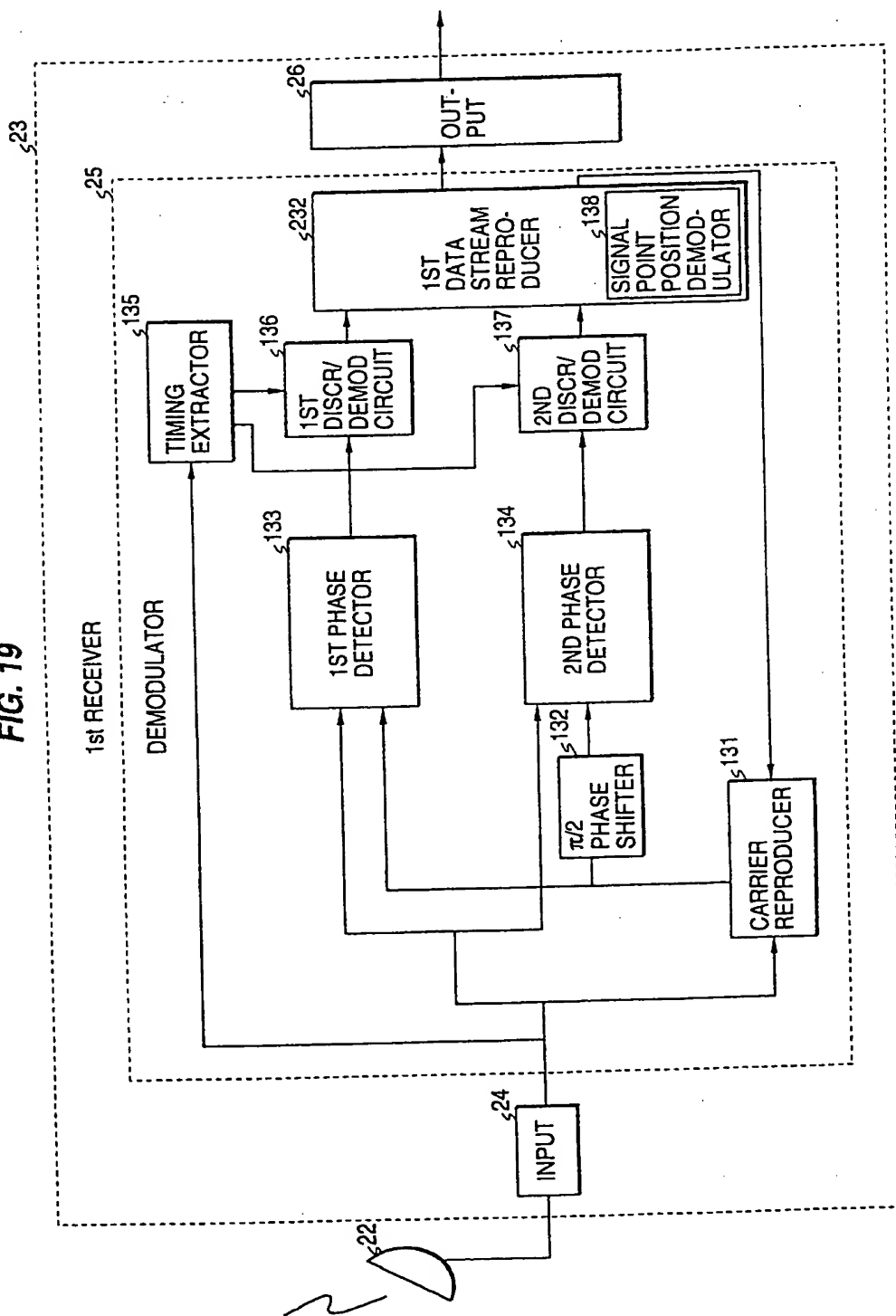


FIG. 20

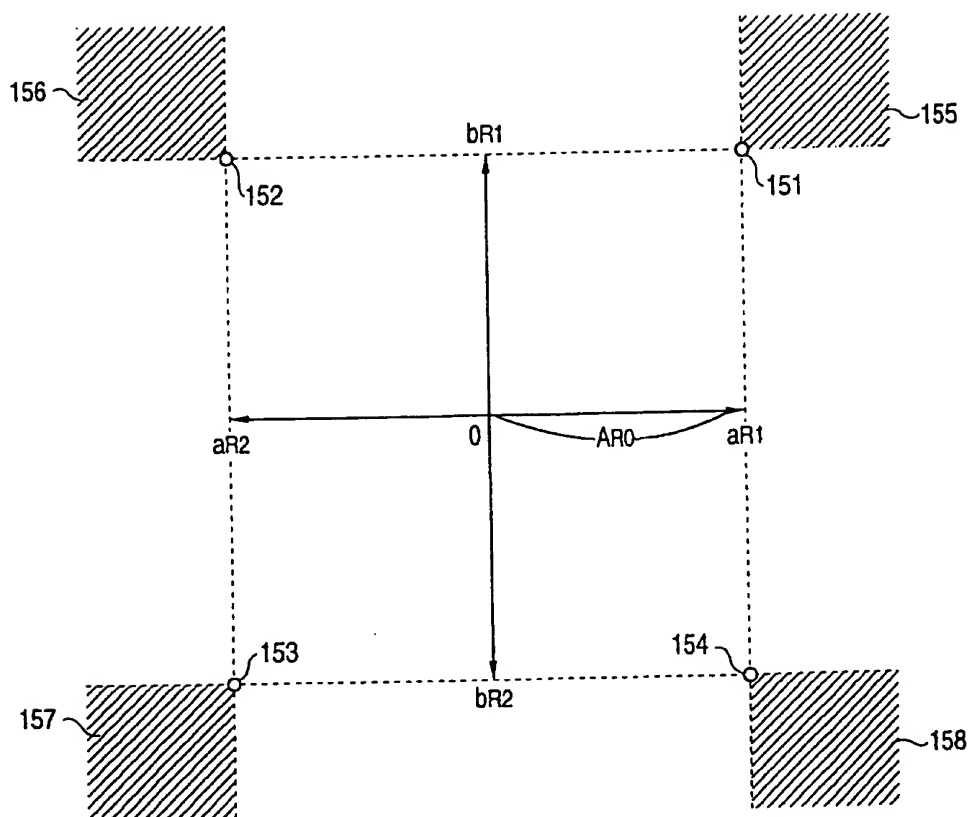


FIG. 21

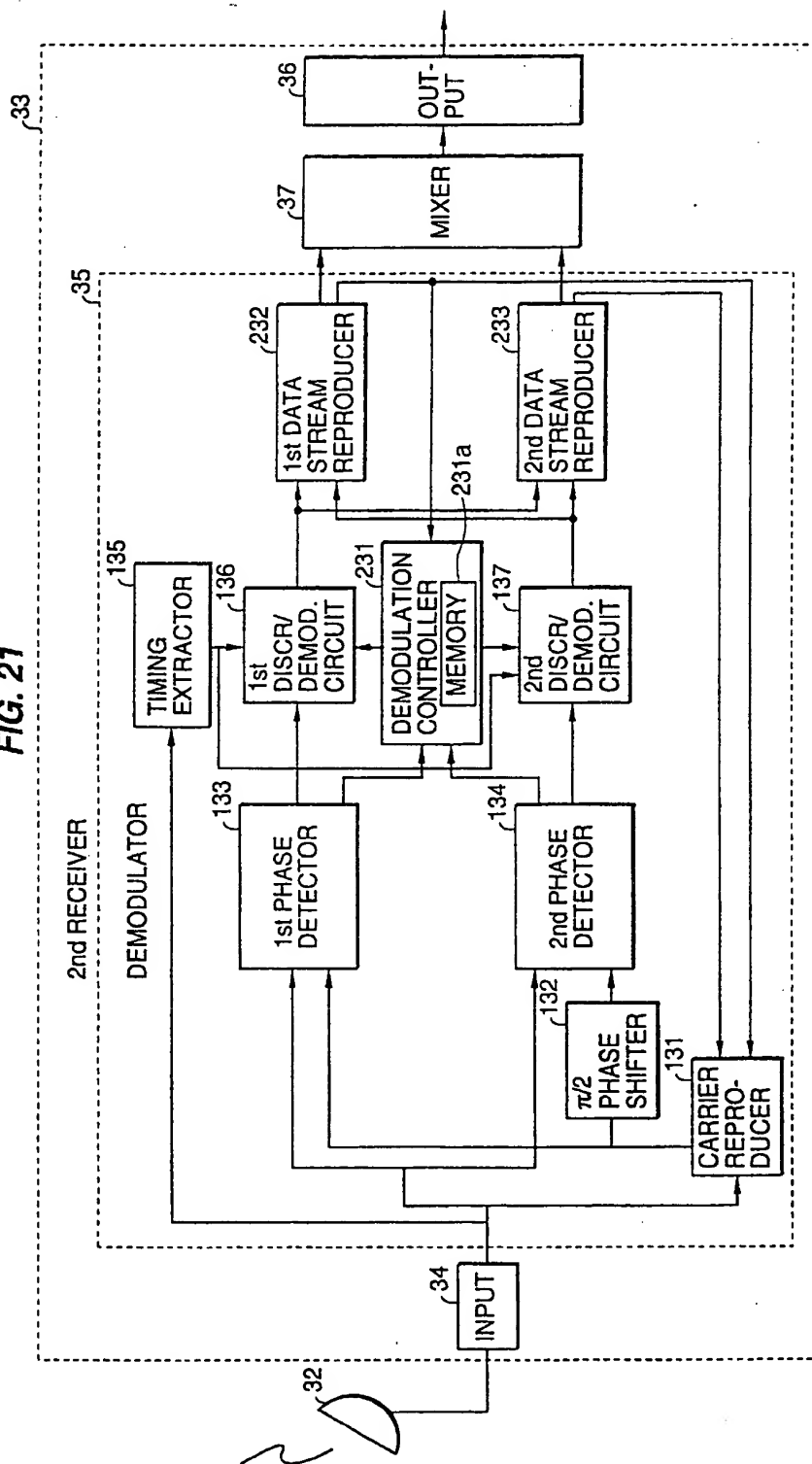
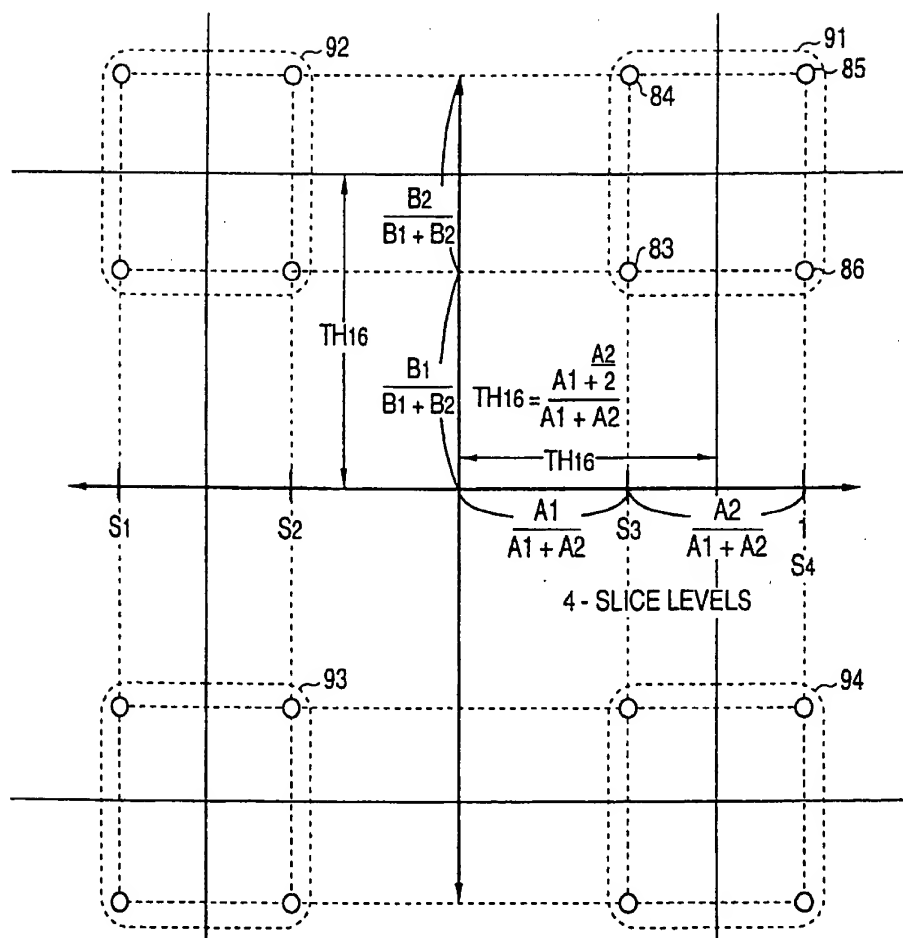


FIG. 22



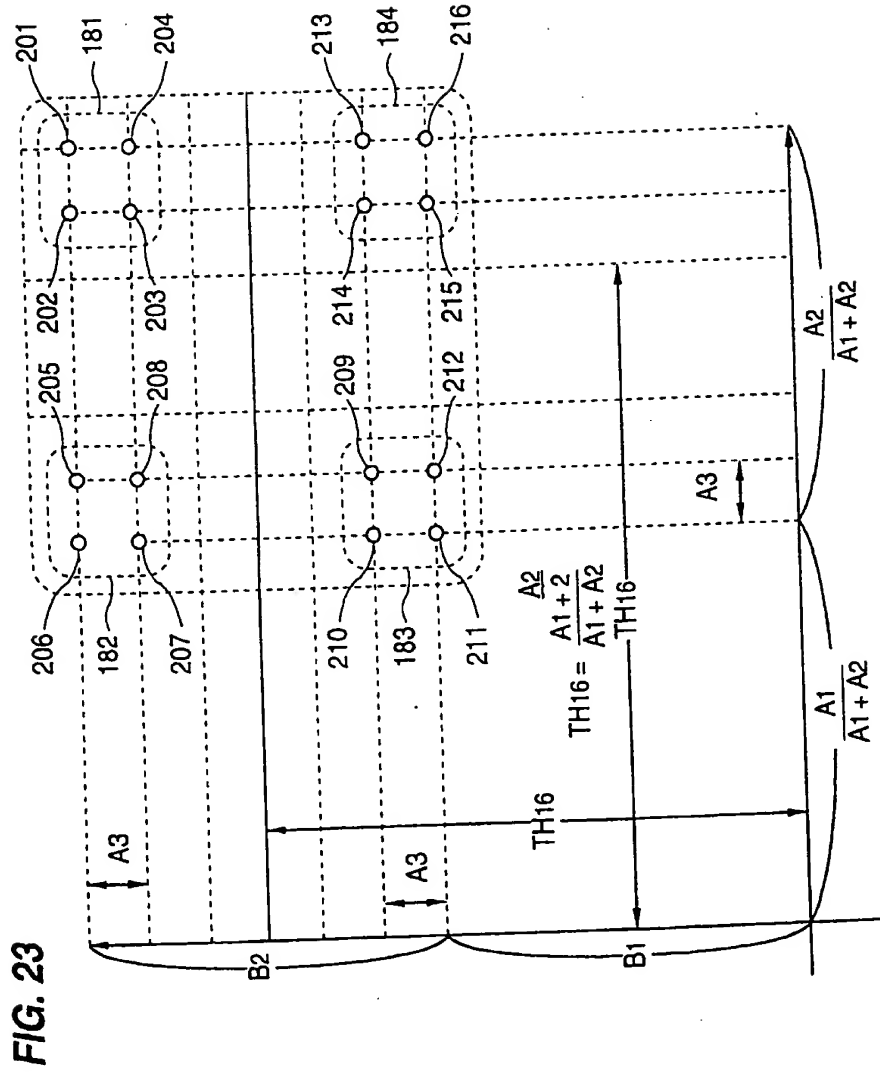


FIG. 24

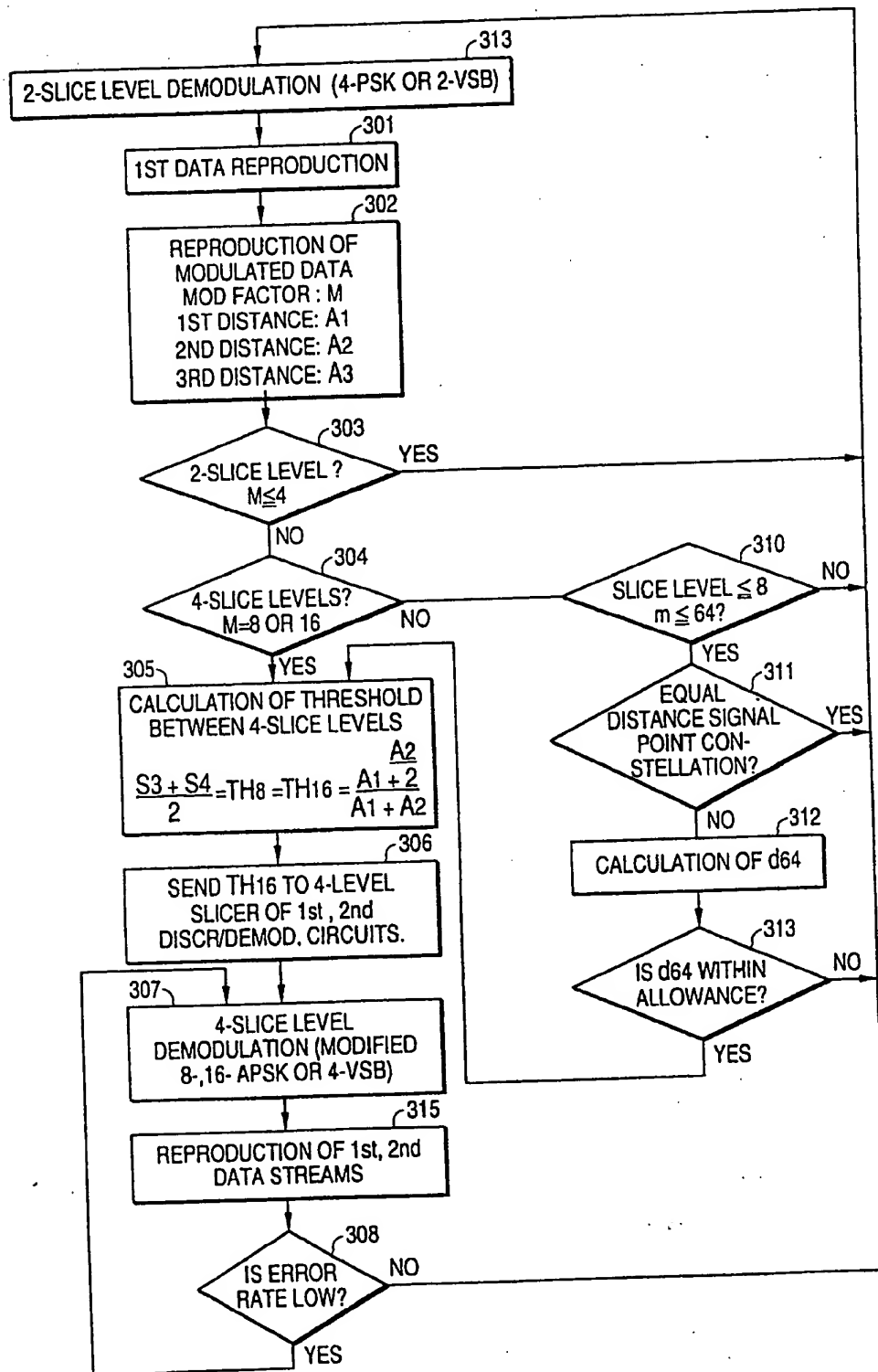


FIG. 25(a)

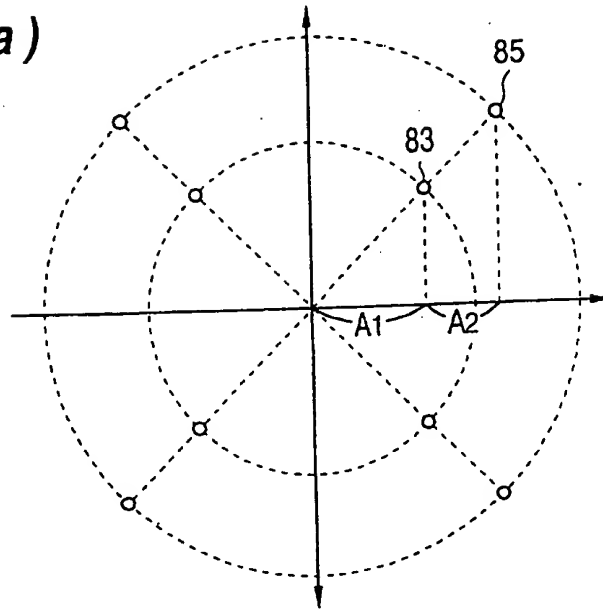


FIG. 25(b)

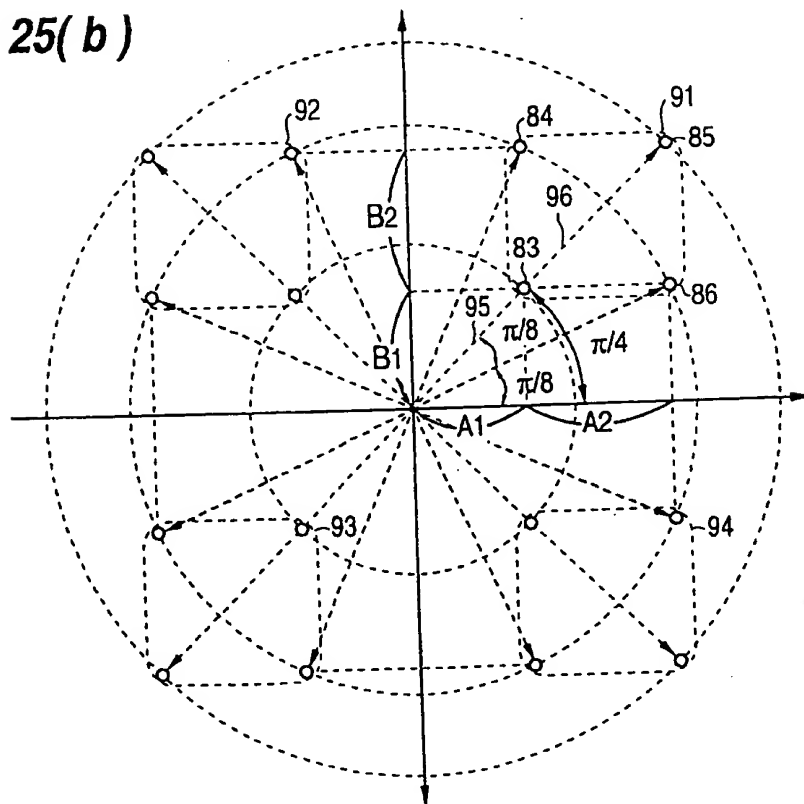
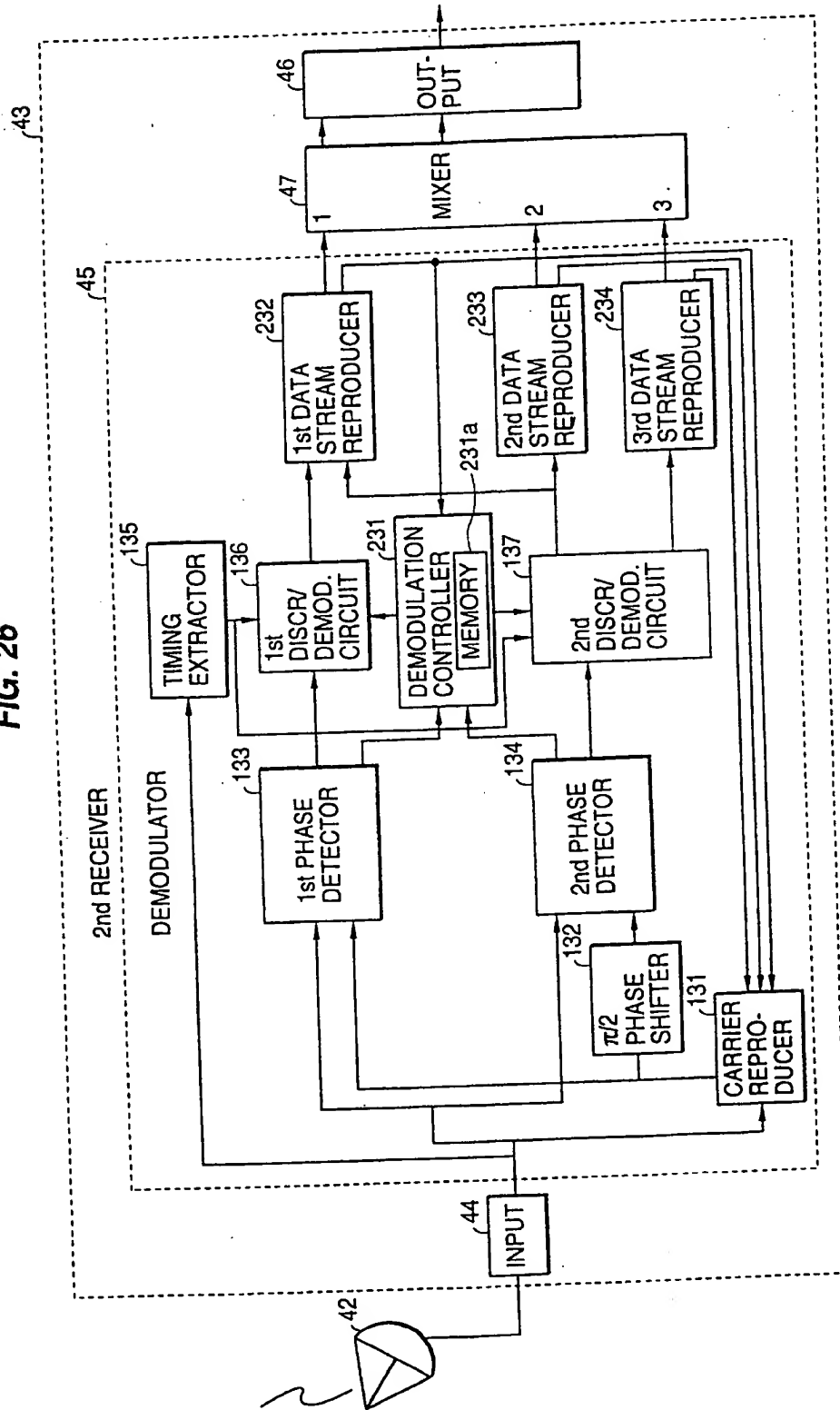


FIG. 26



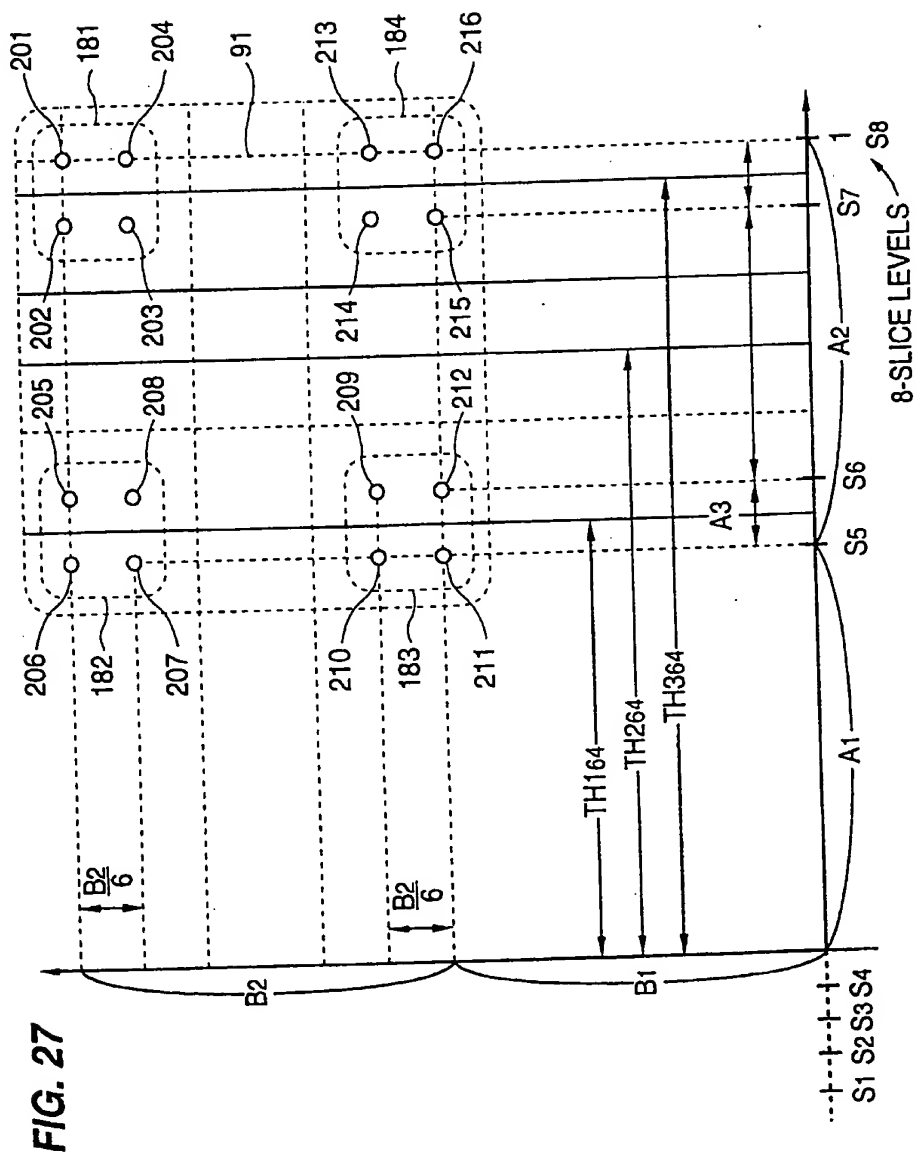
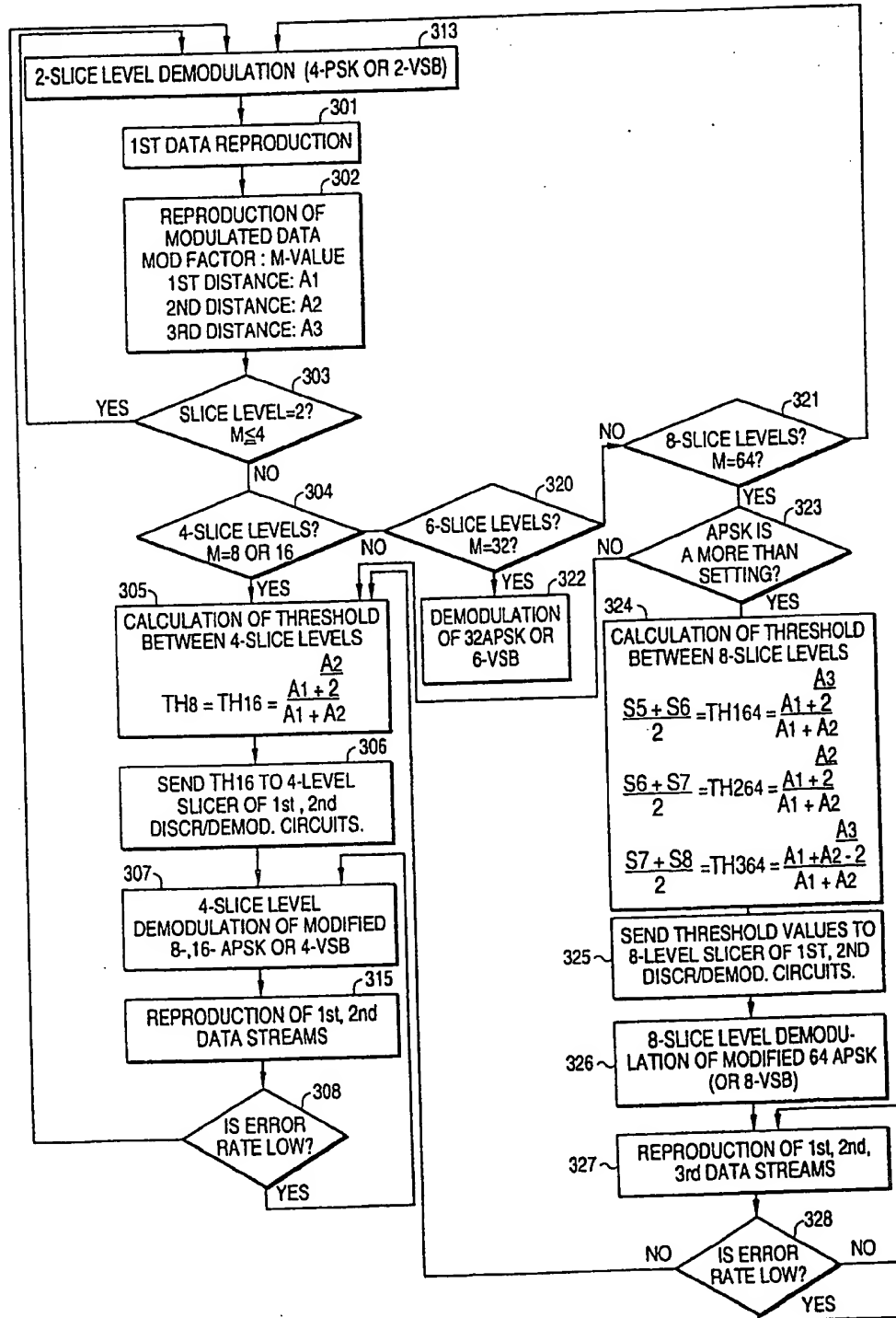


FIG. 28



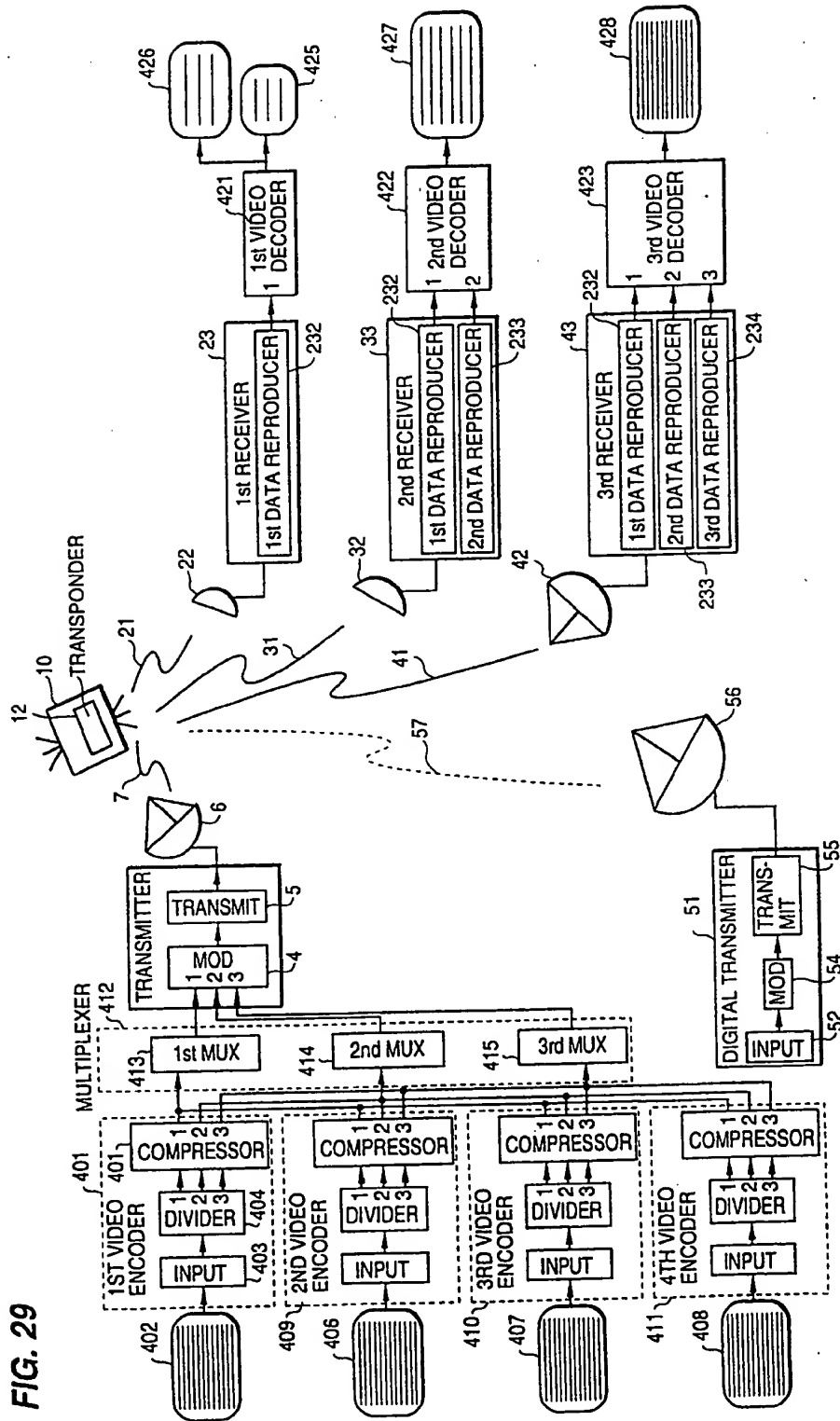
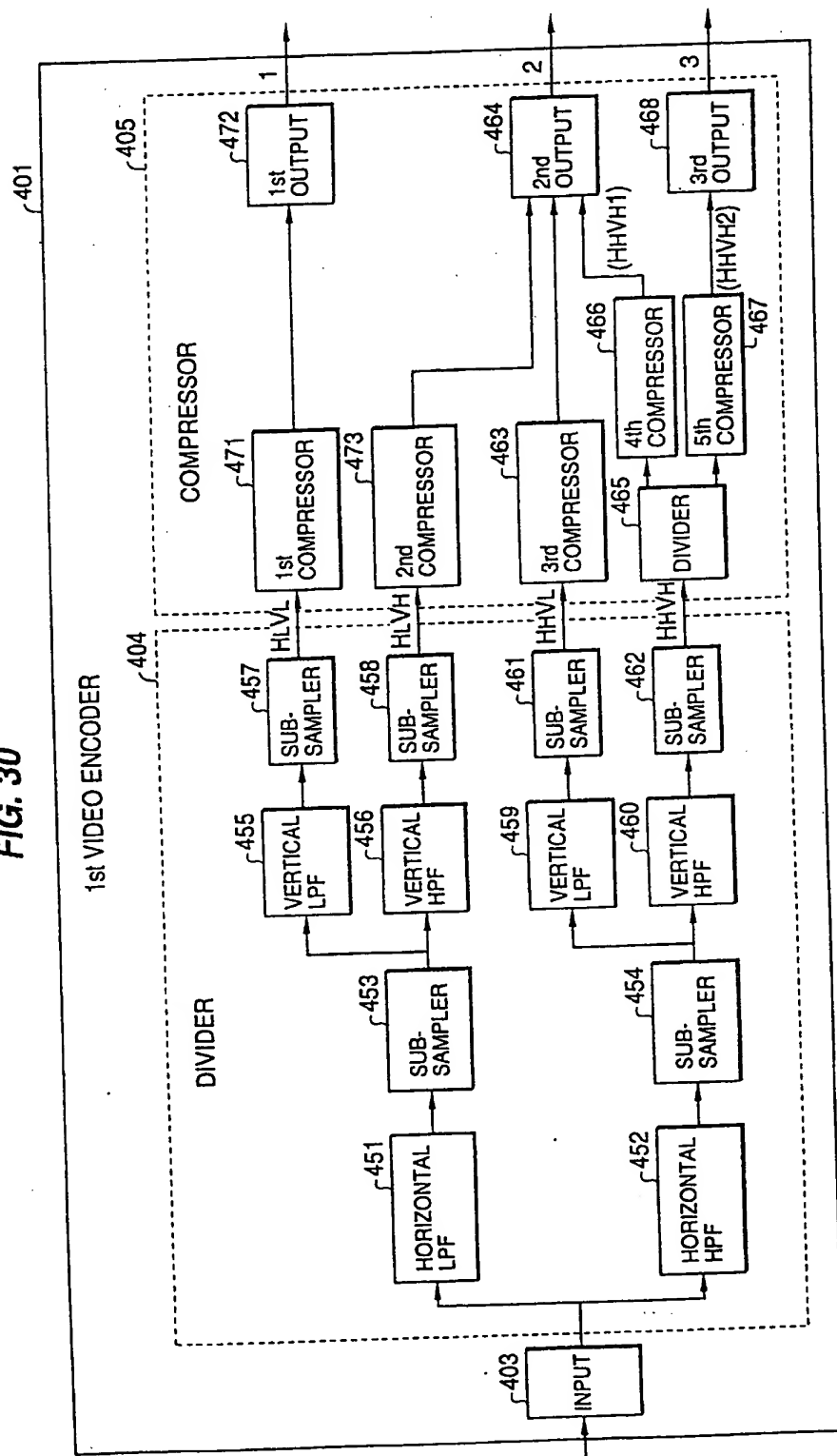


FIG. 29

FIG. 30



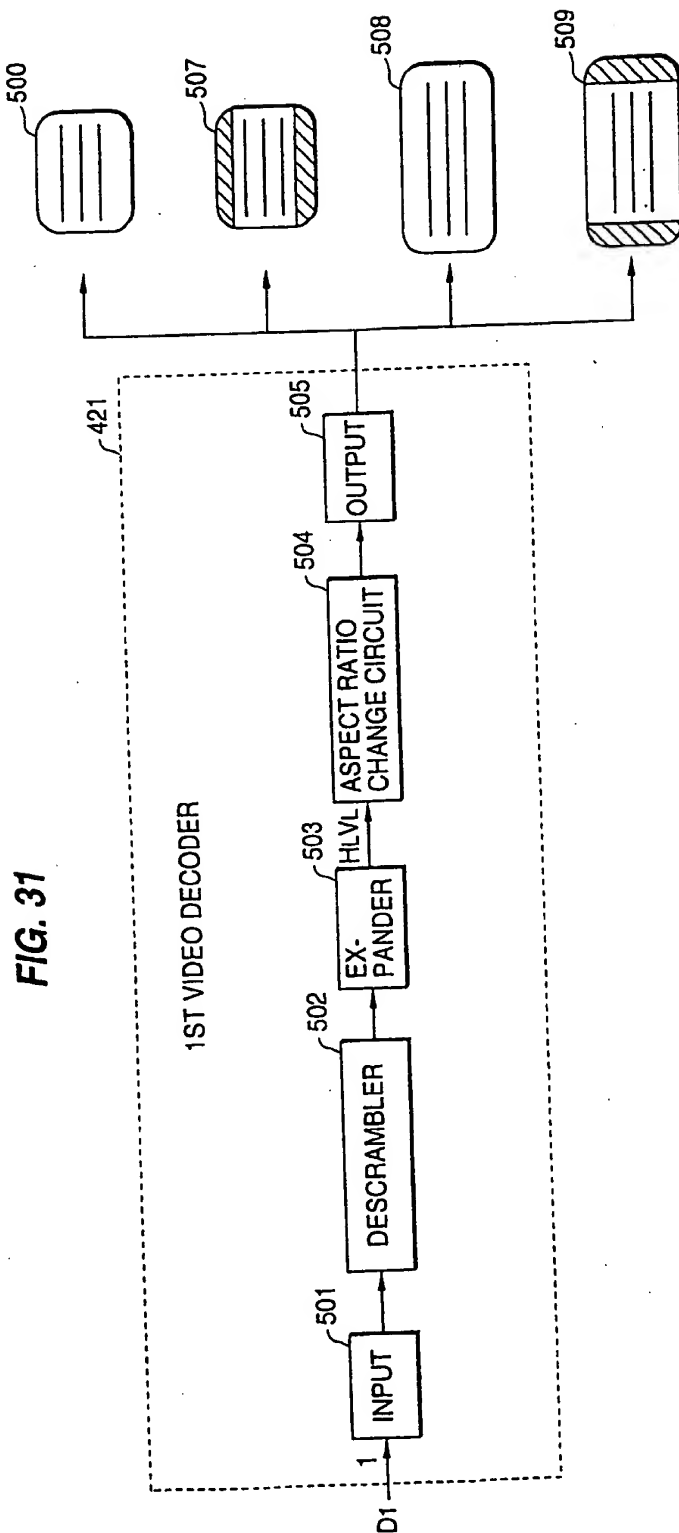


FIG. 32

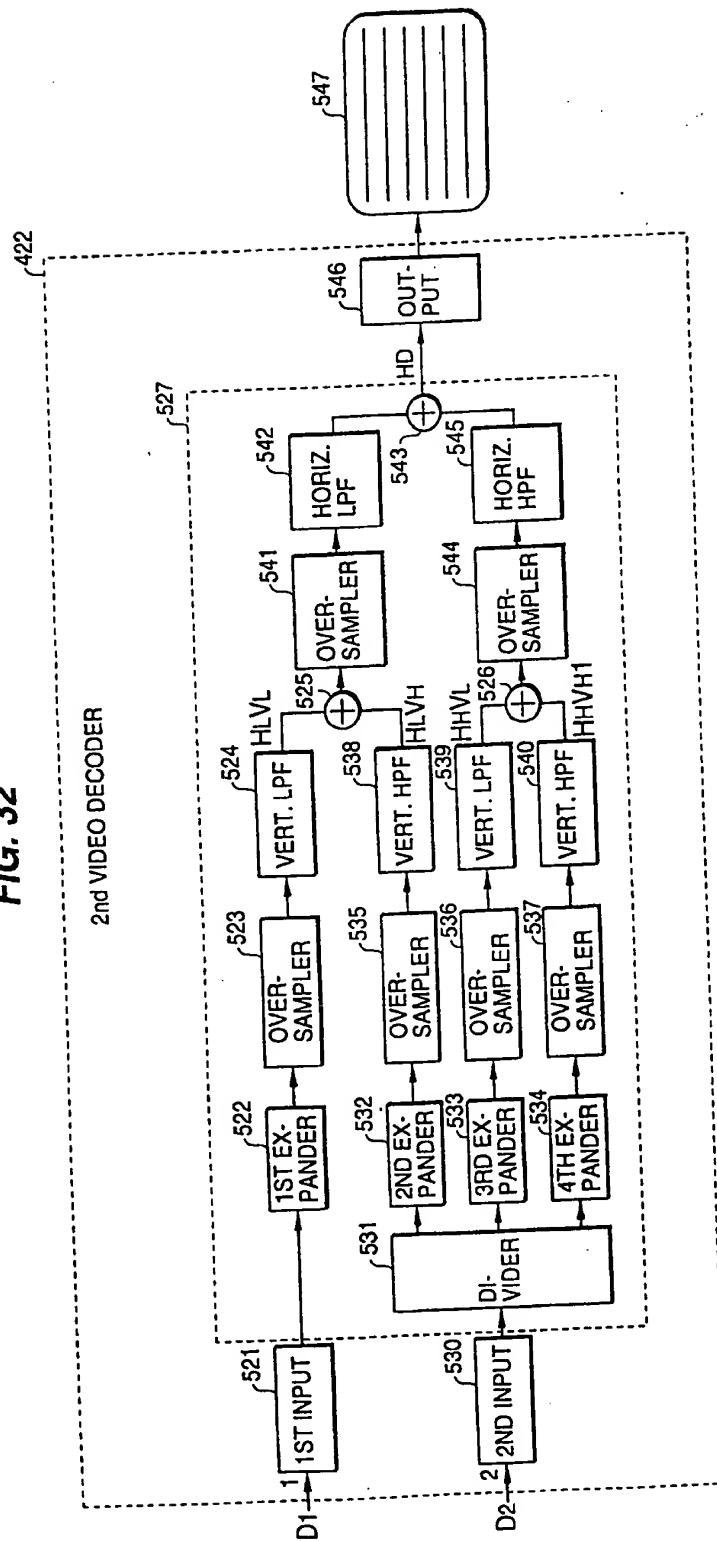


FIG. 33

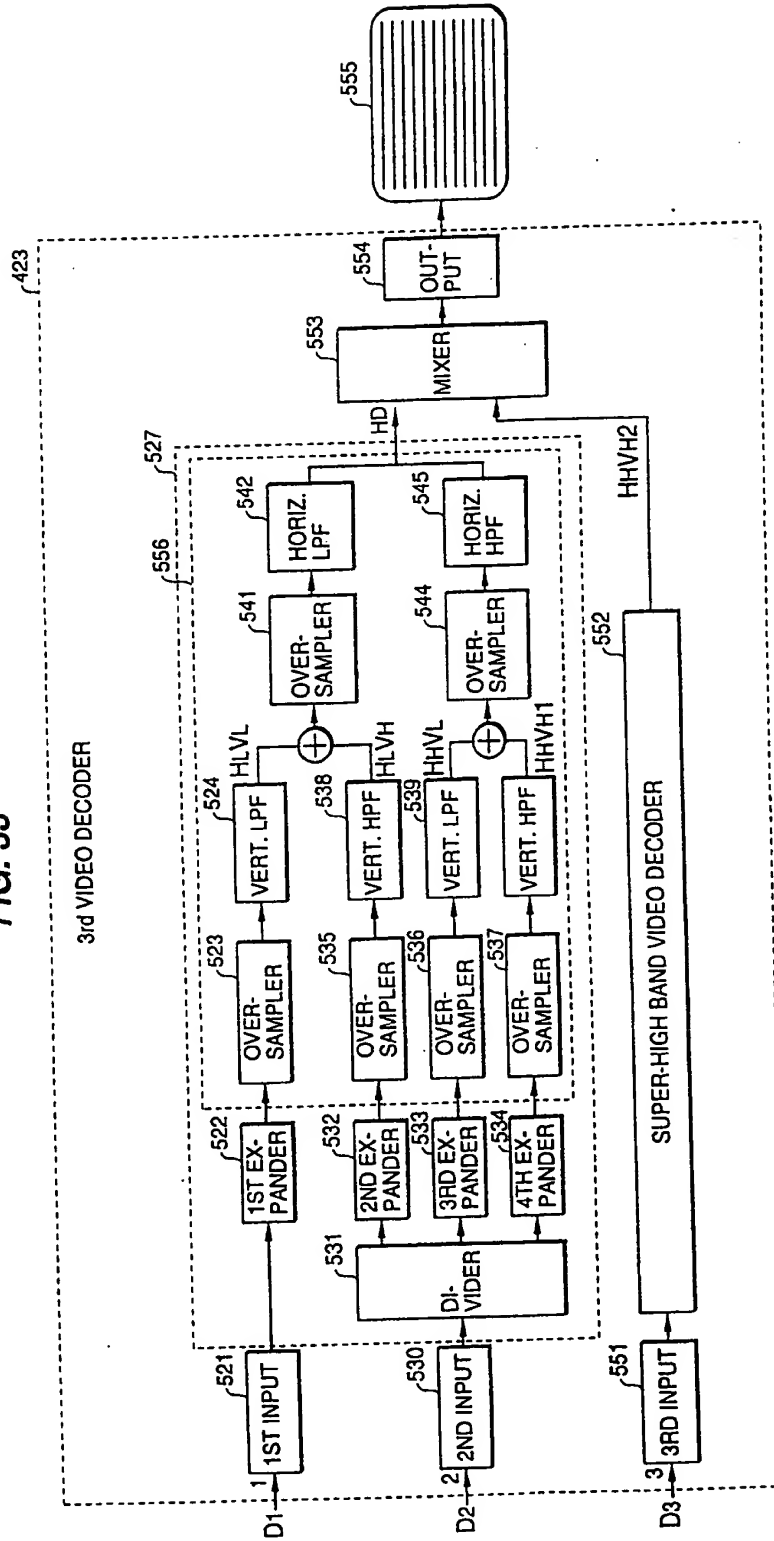


FIG. 34

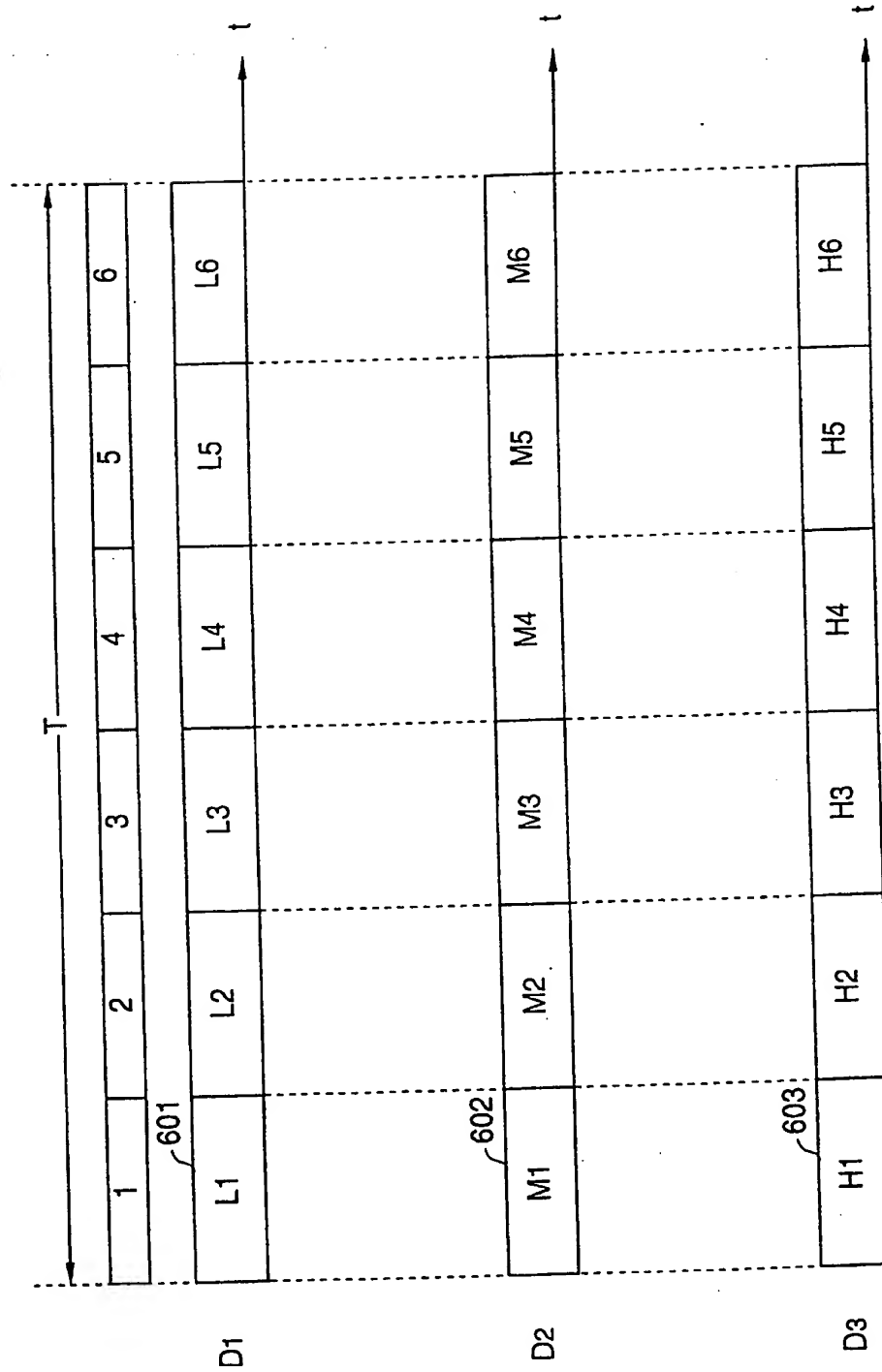


FIG. 35

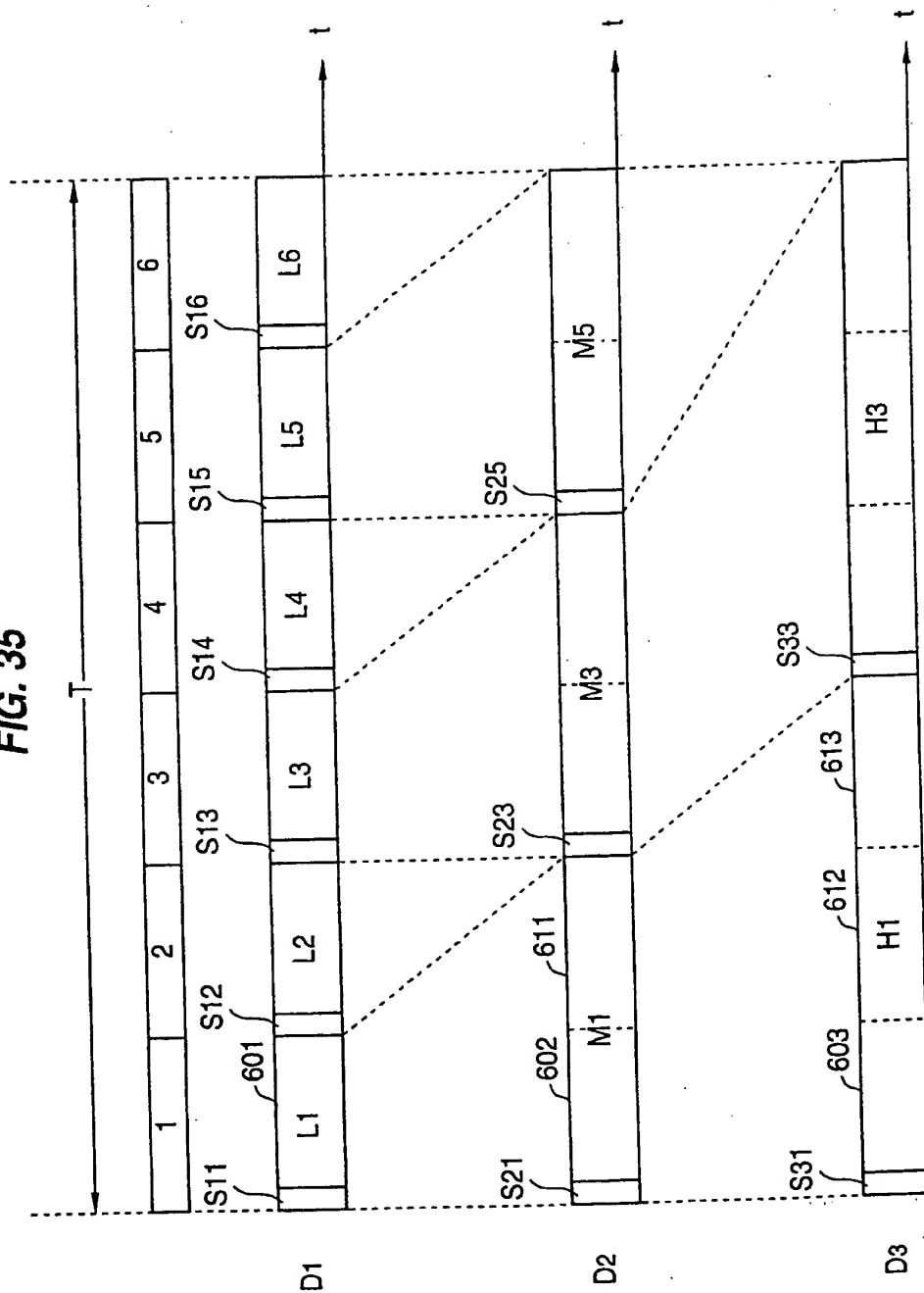


FIG. 36

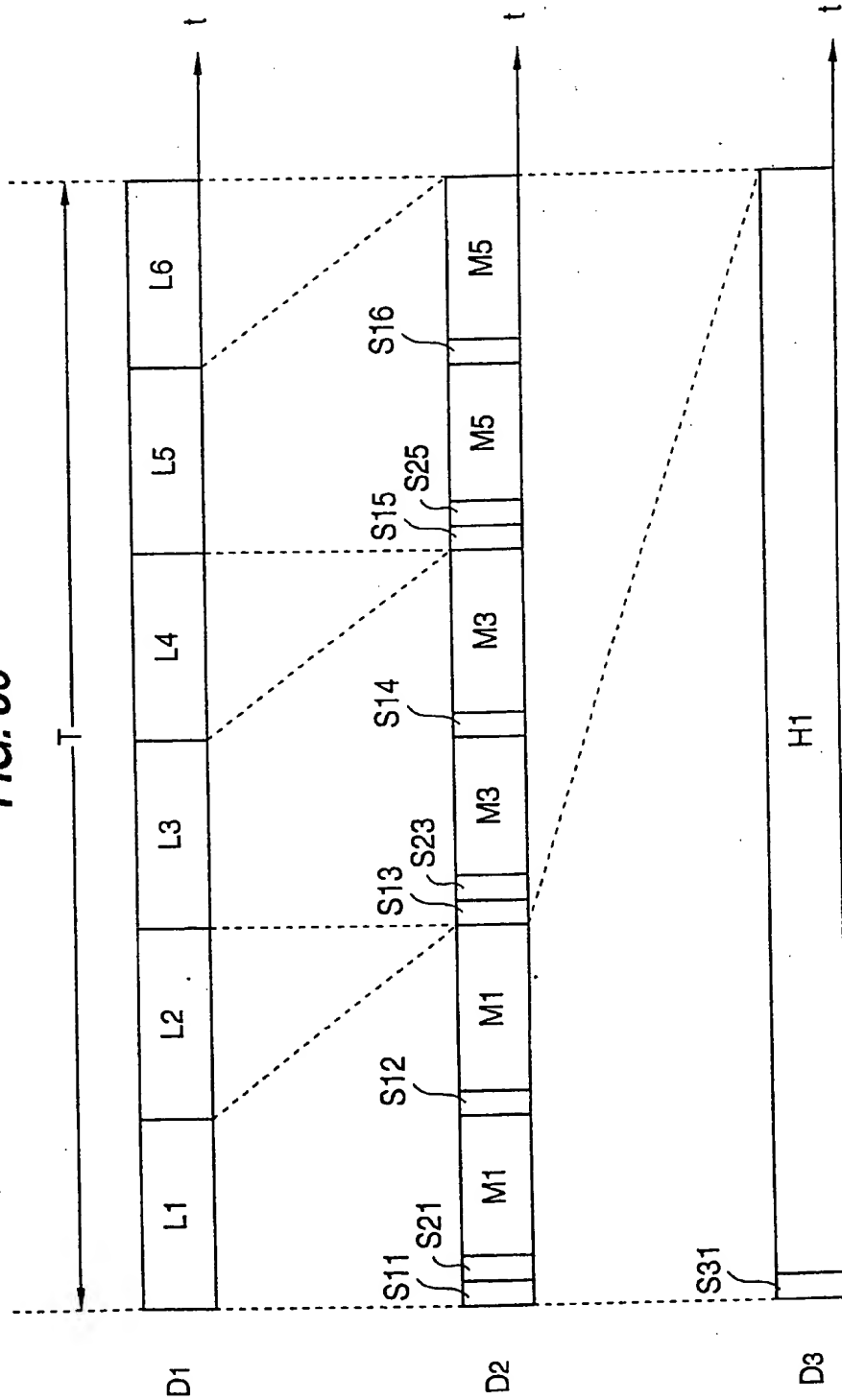


FIG. 37

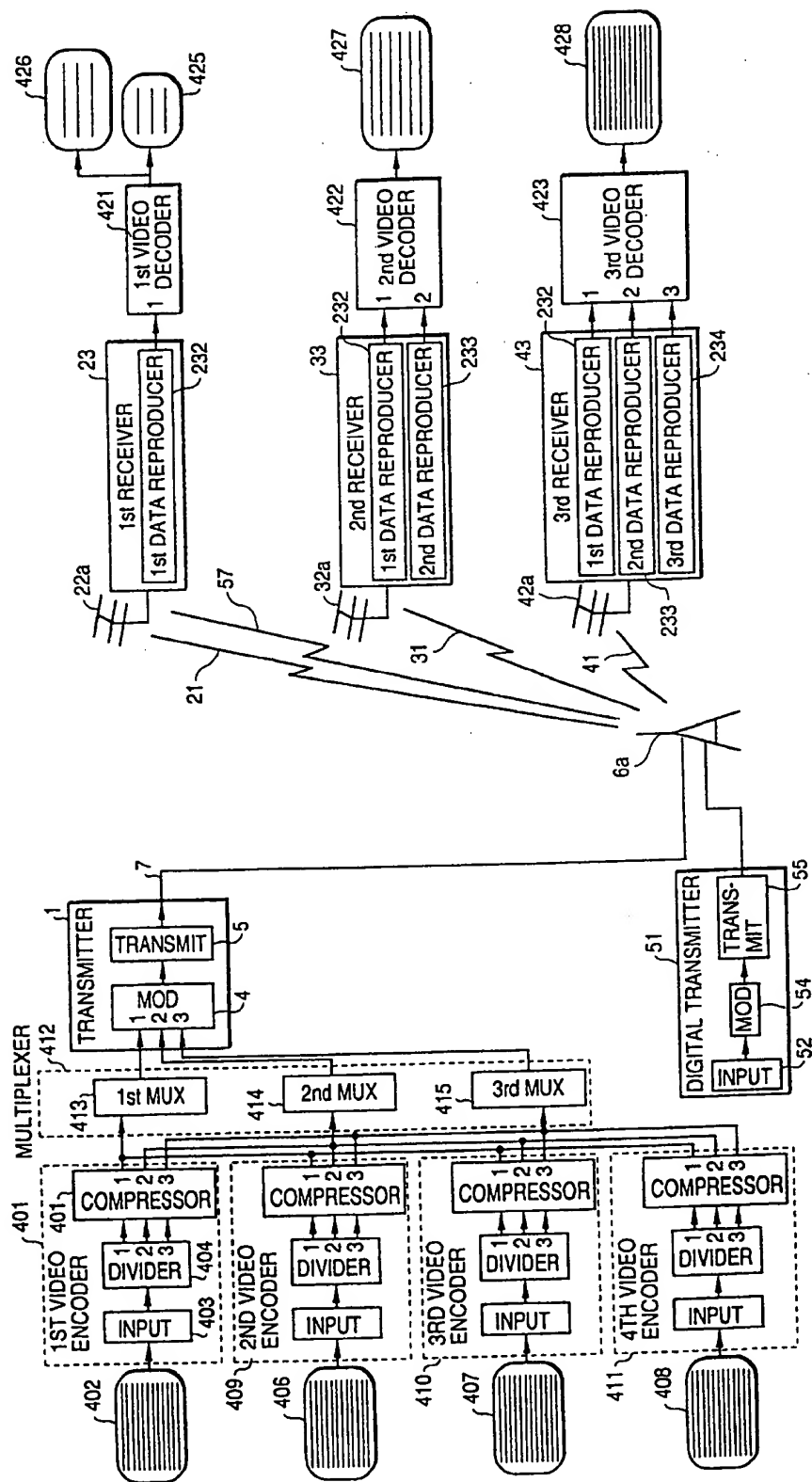


FIG. 38

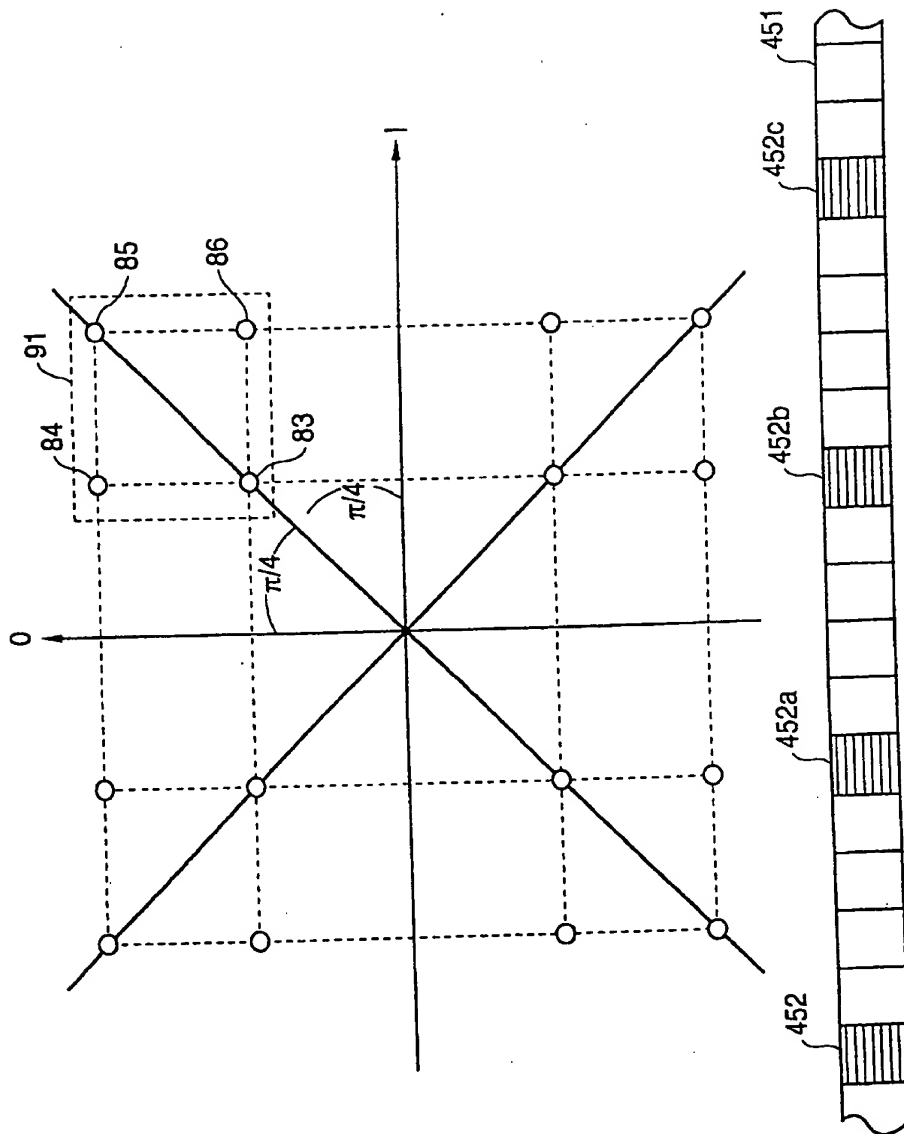


FIG. 39

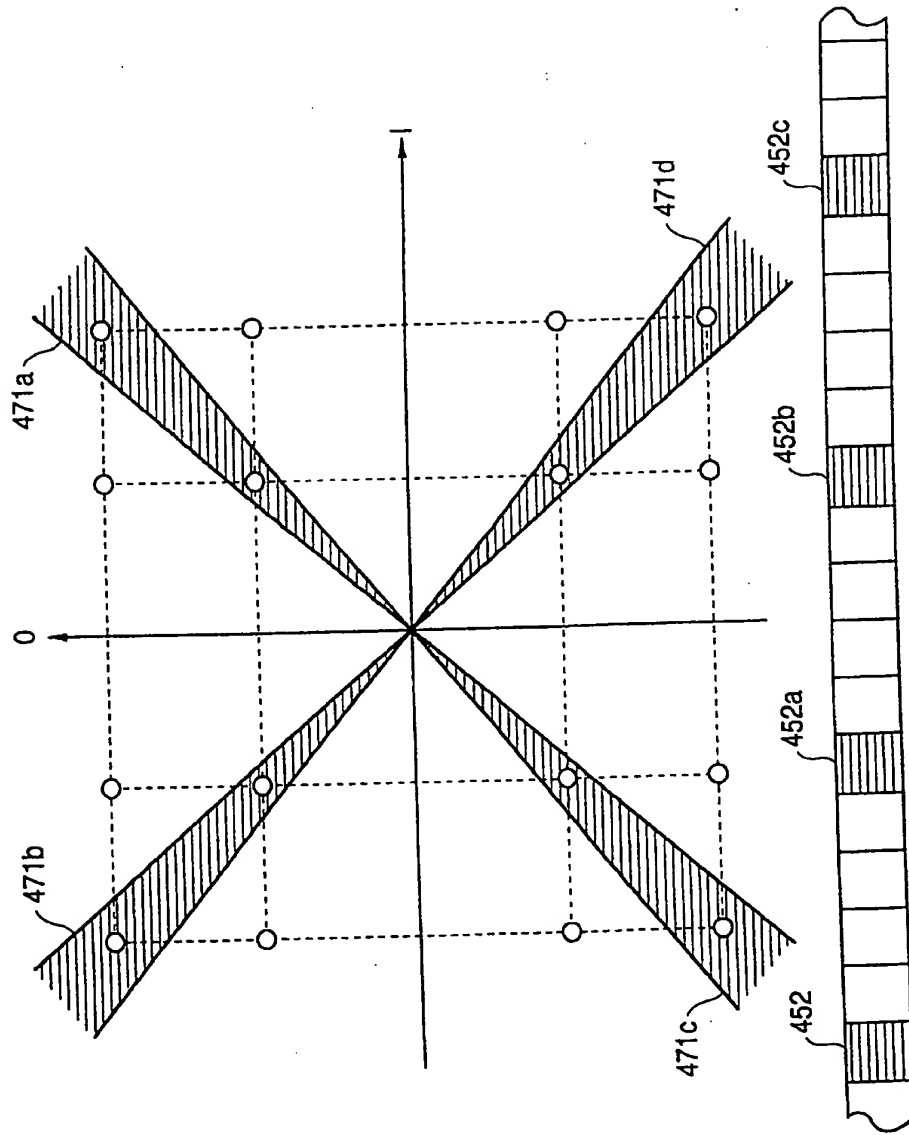


FIG. 40

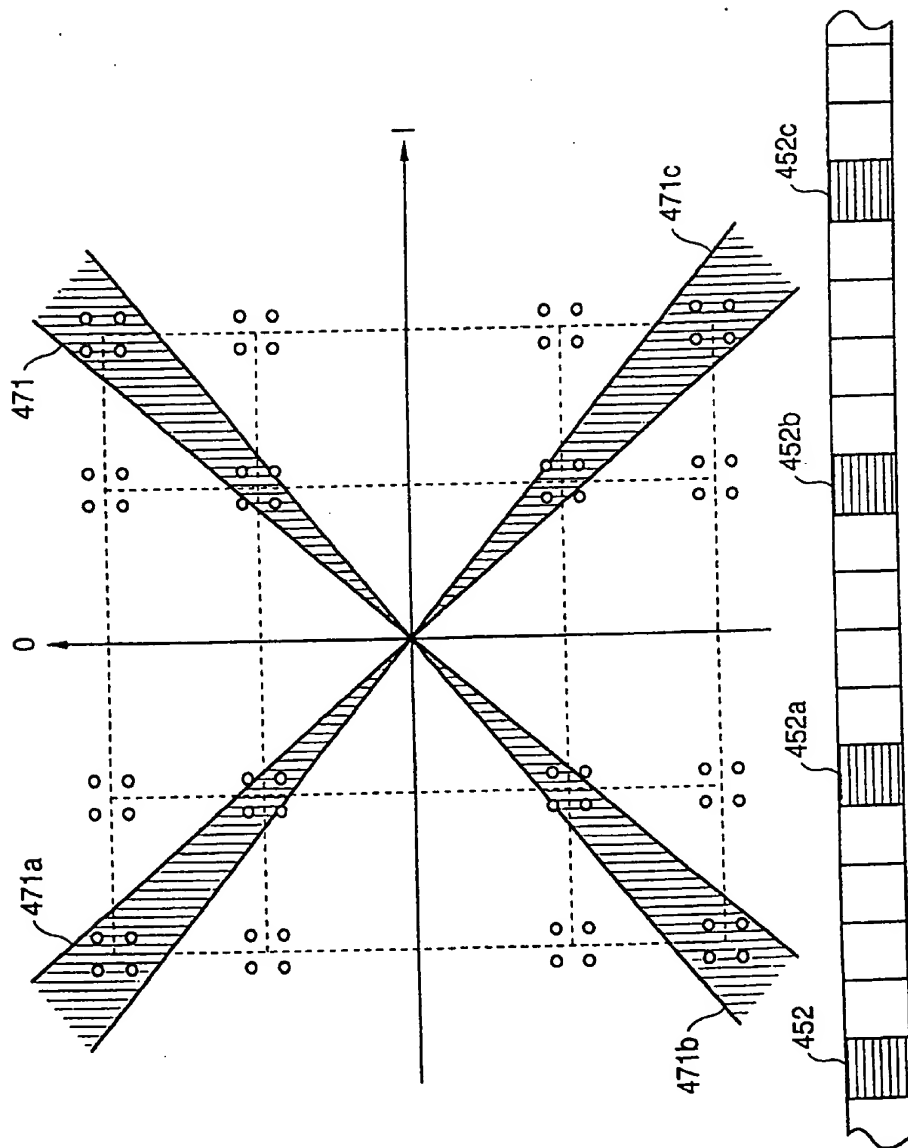


FIG. 41

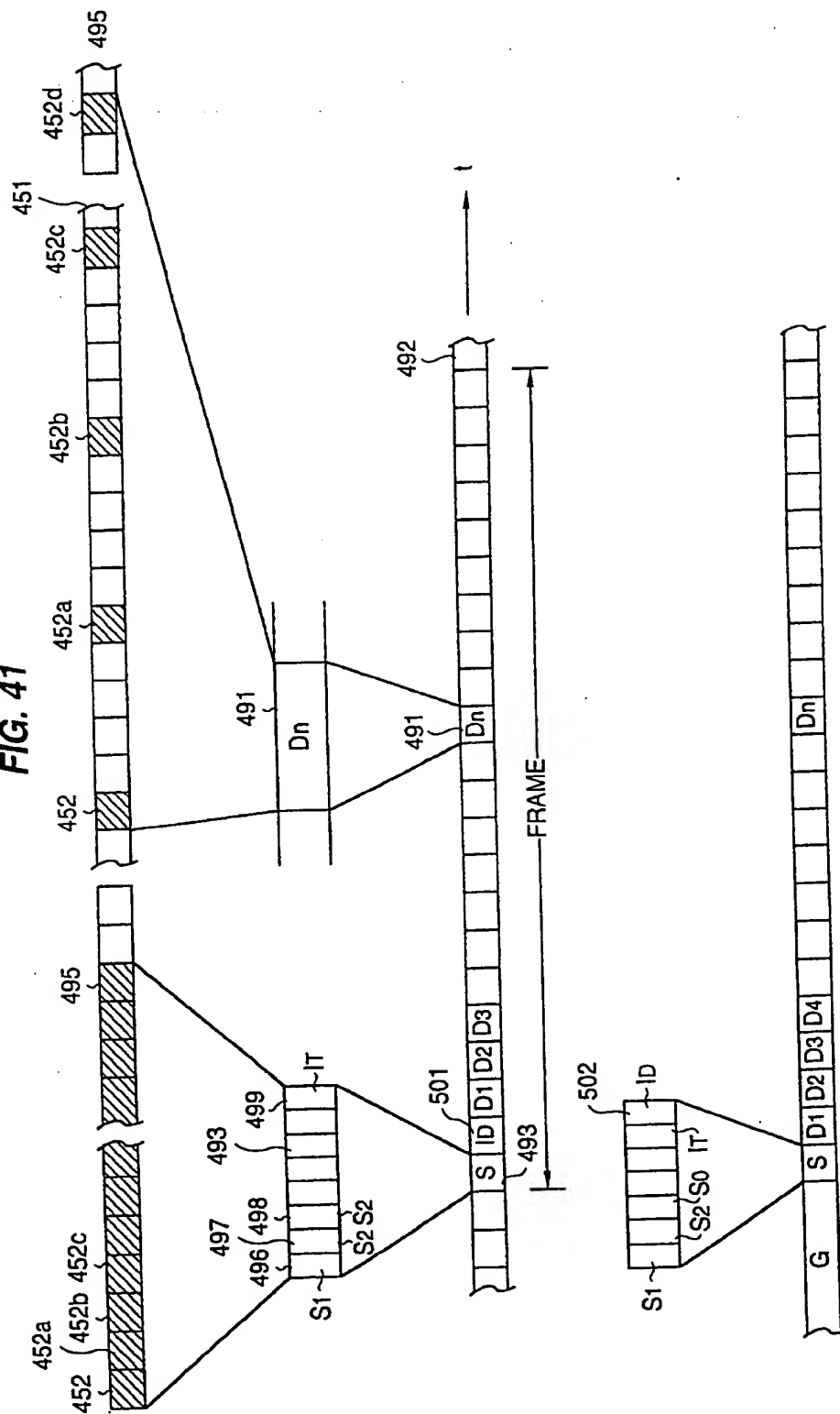


FIG. 42

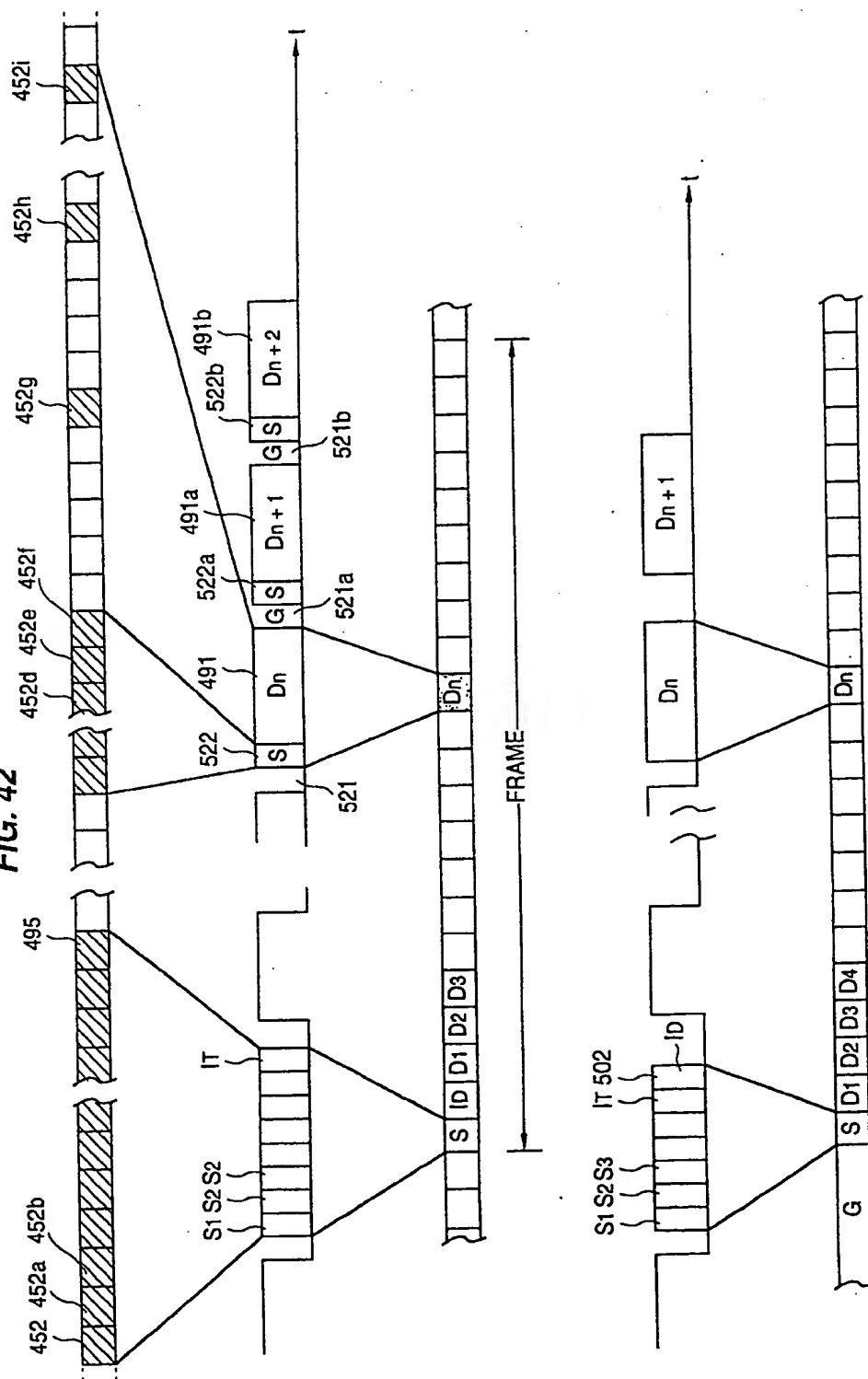


FIG. 43

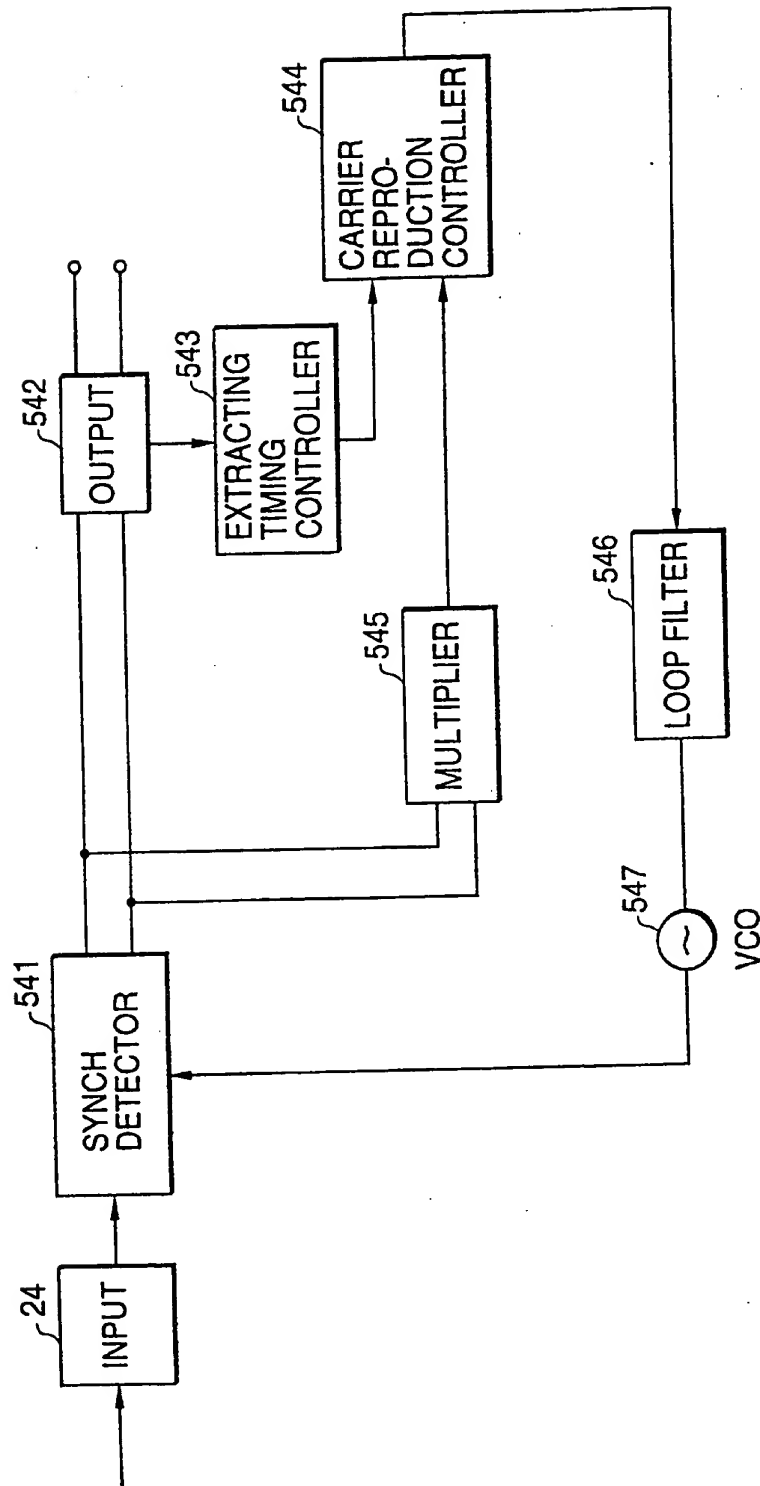


FIG. 44

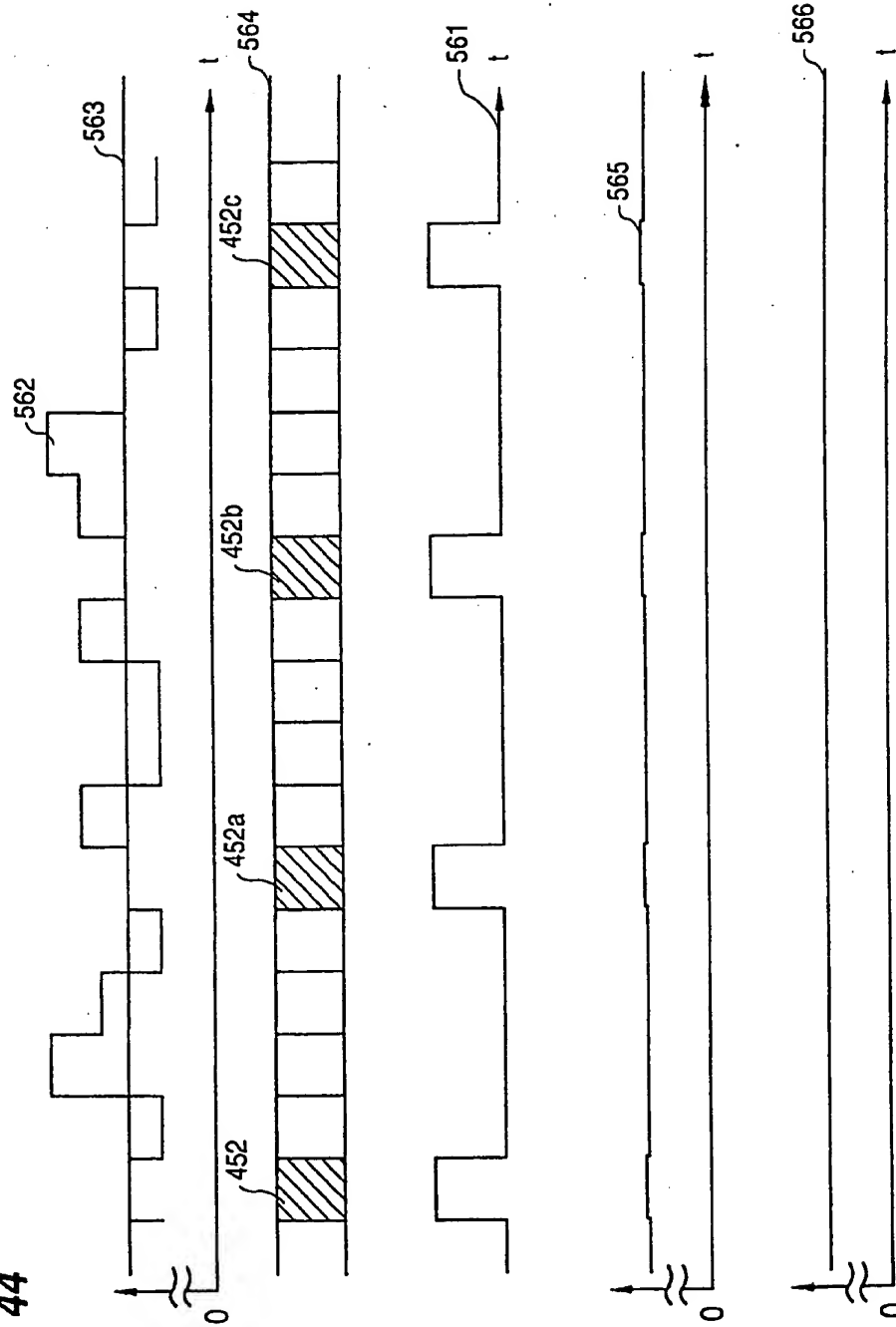


FIG. 45

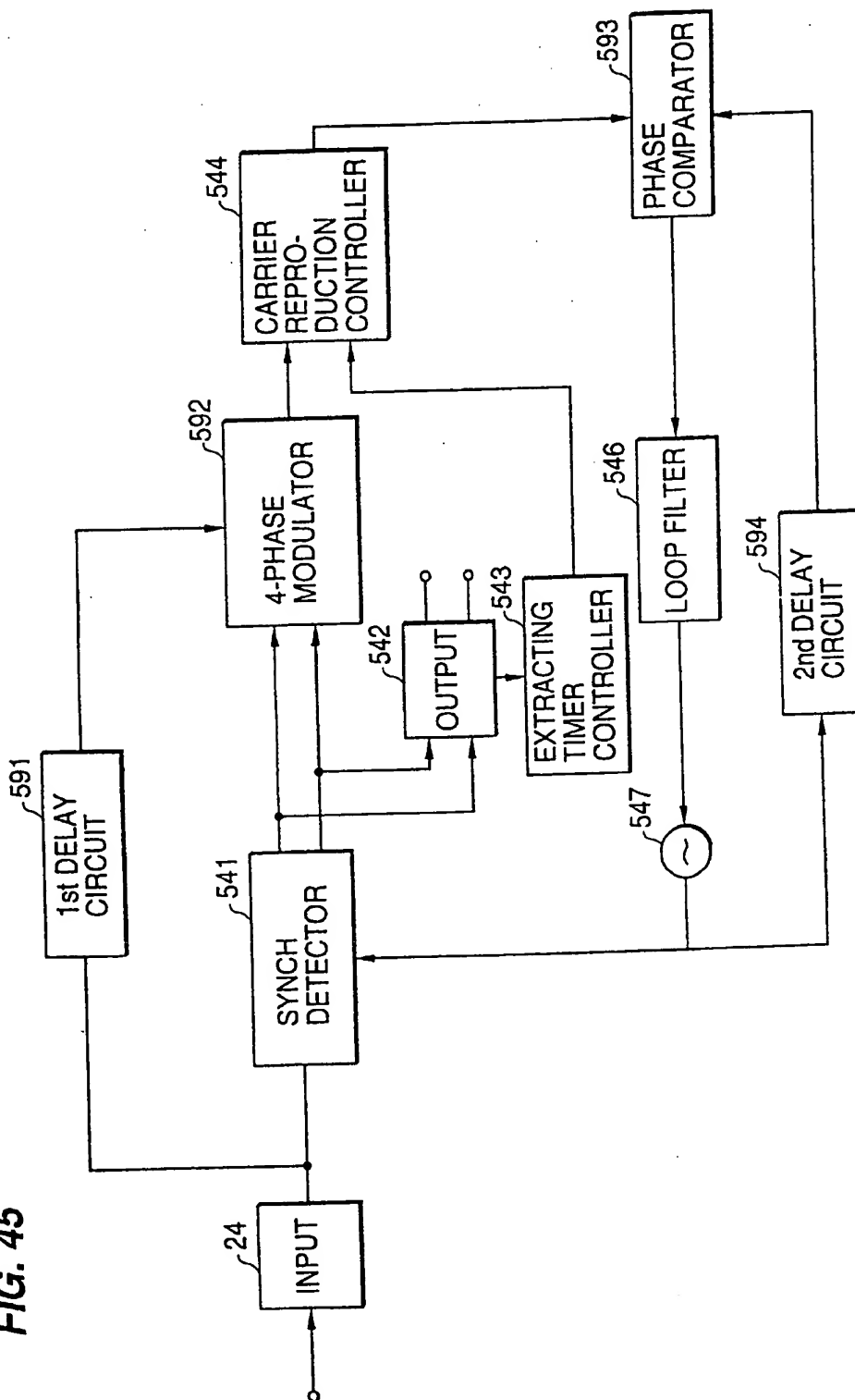


FIG. 46

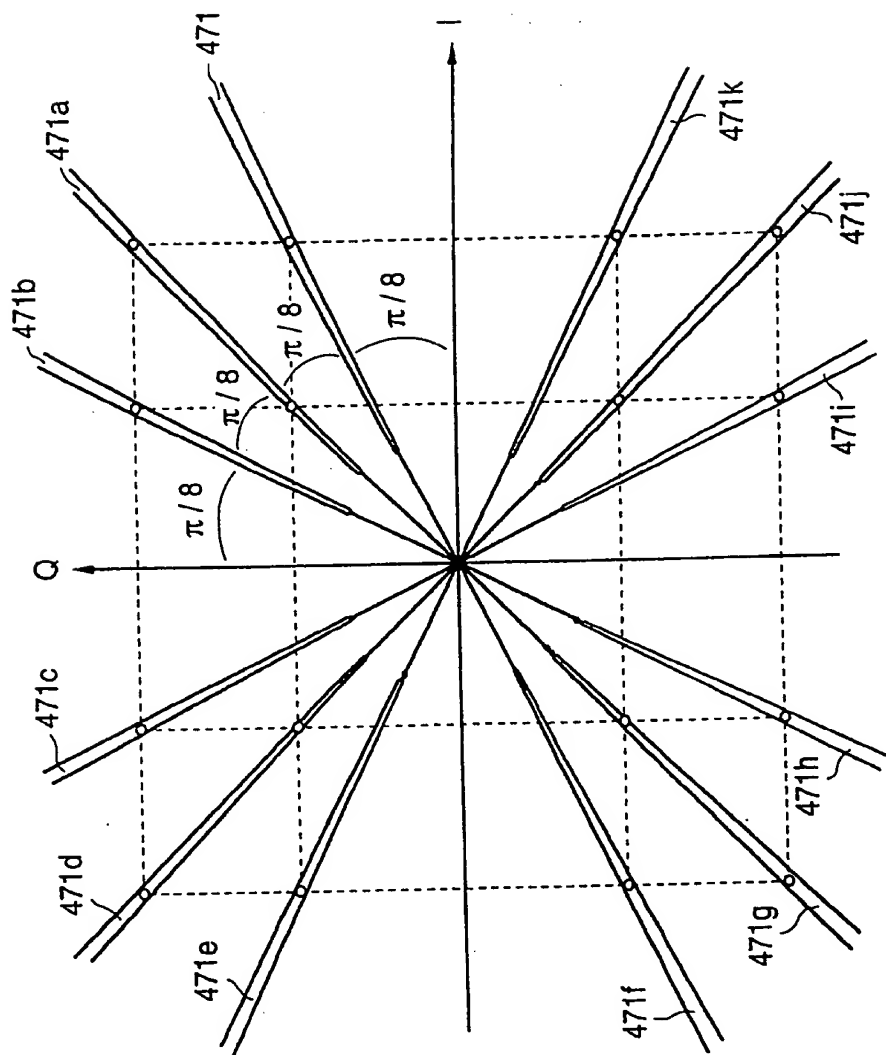


FIG. 47

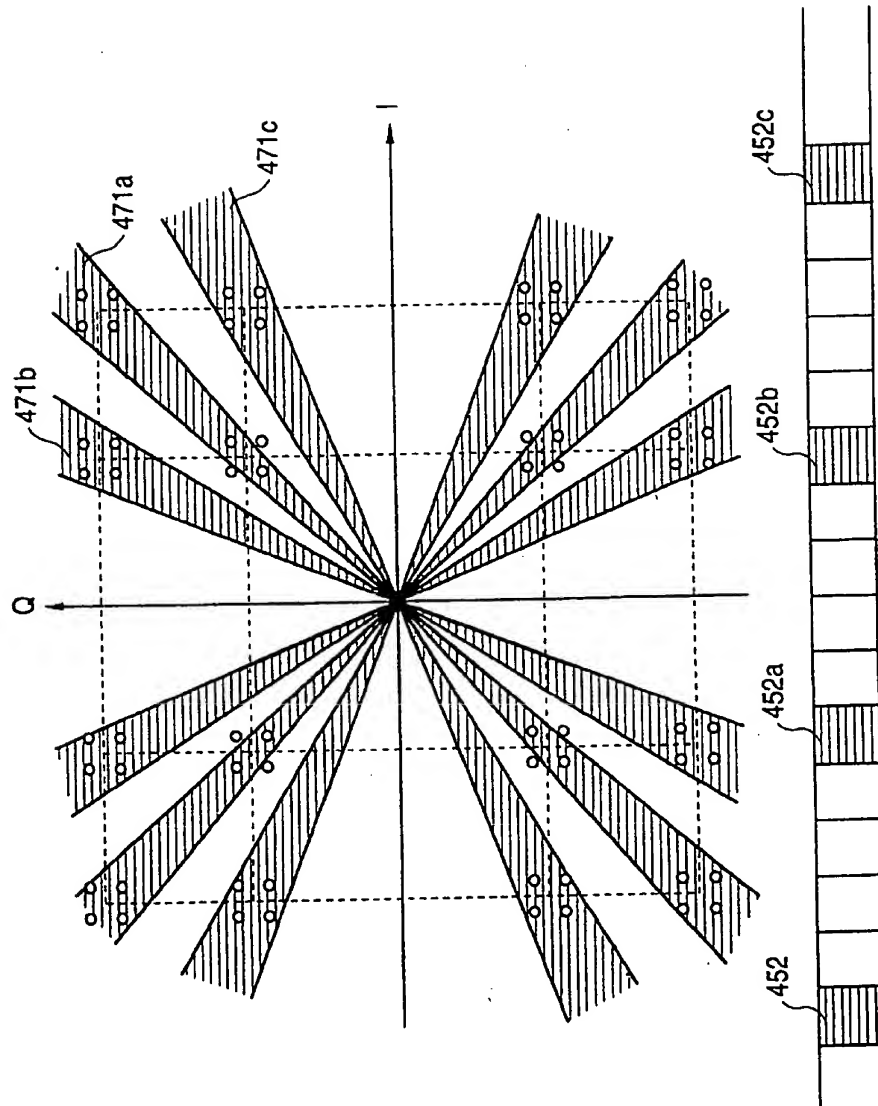


FIG. 48

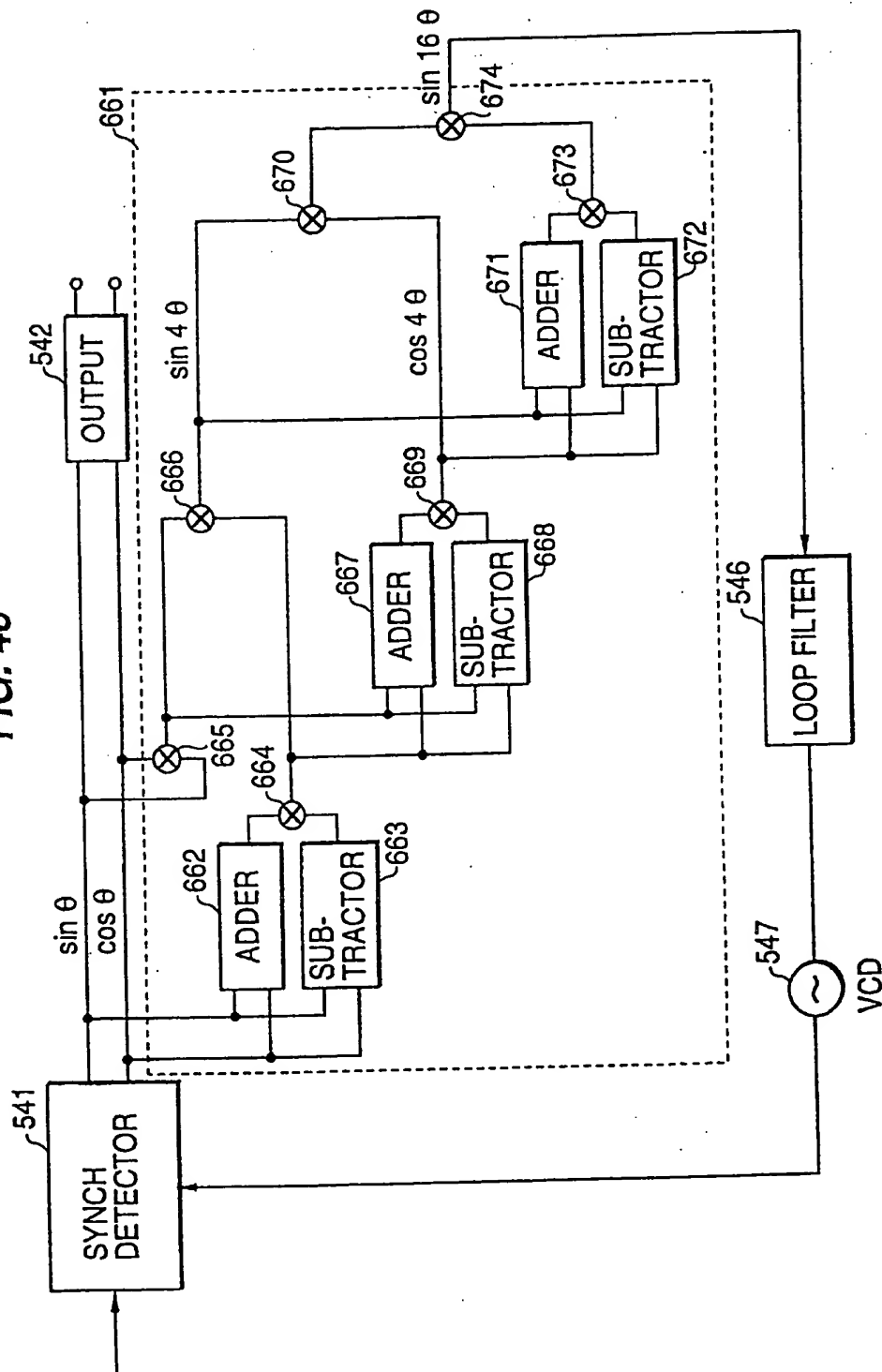


FIG. 49

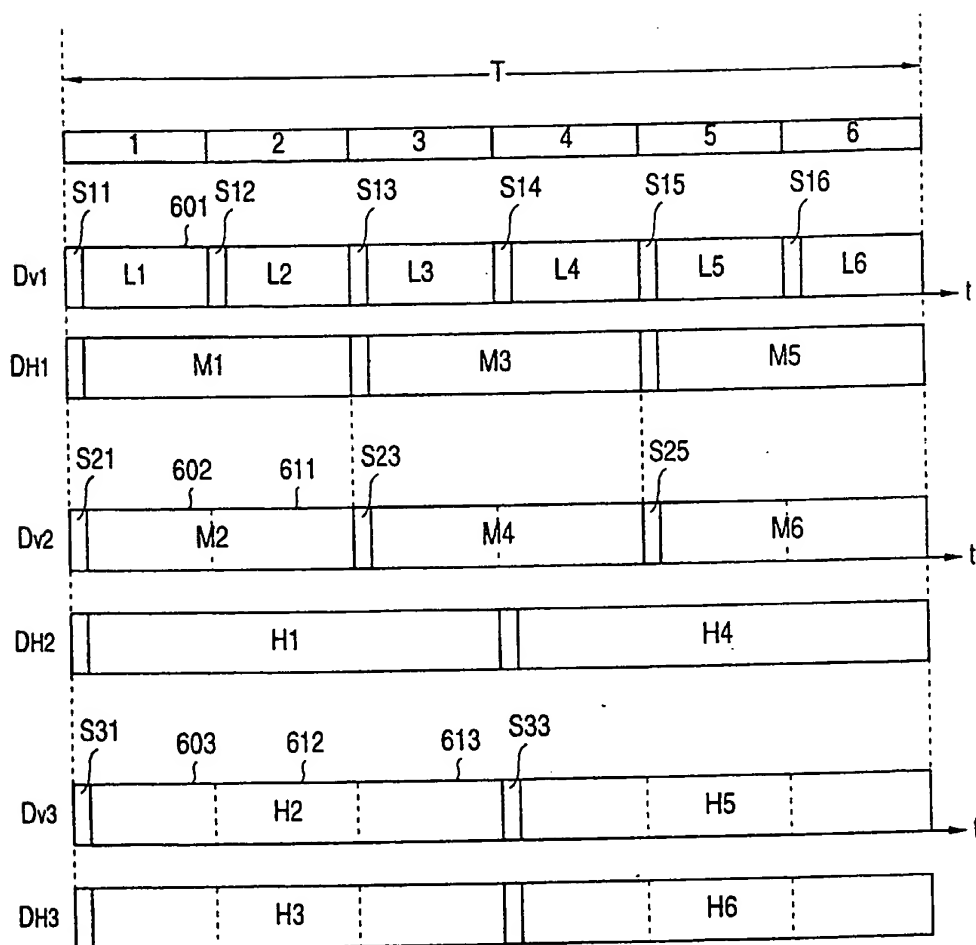


FIG. 50

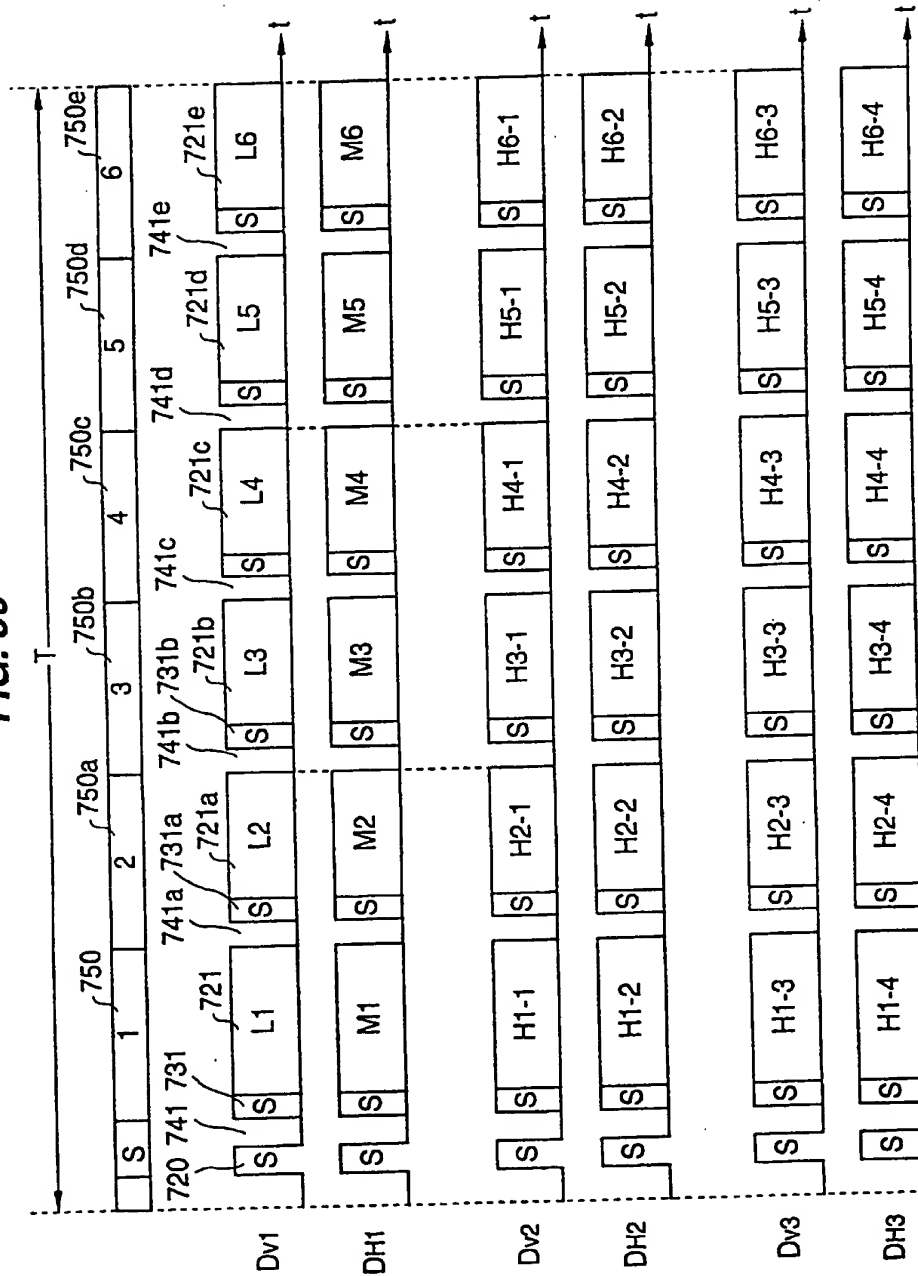


FIG. 51

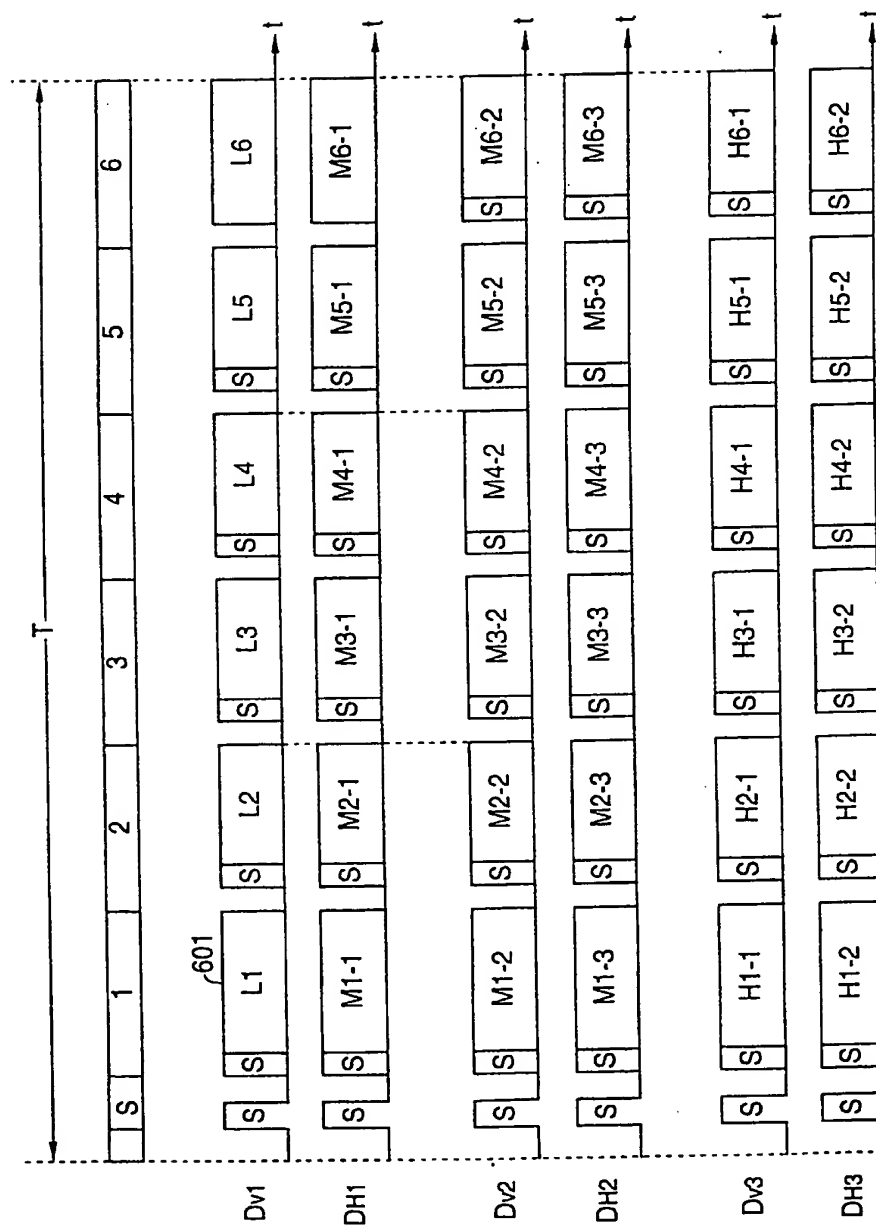


FIG. 52

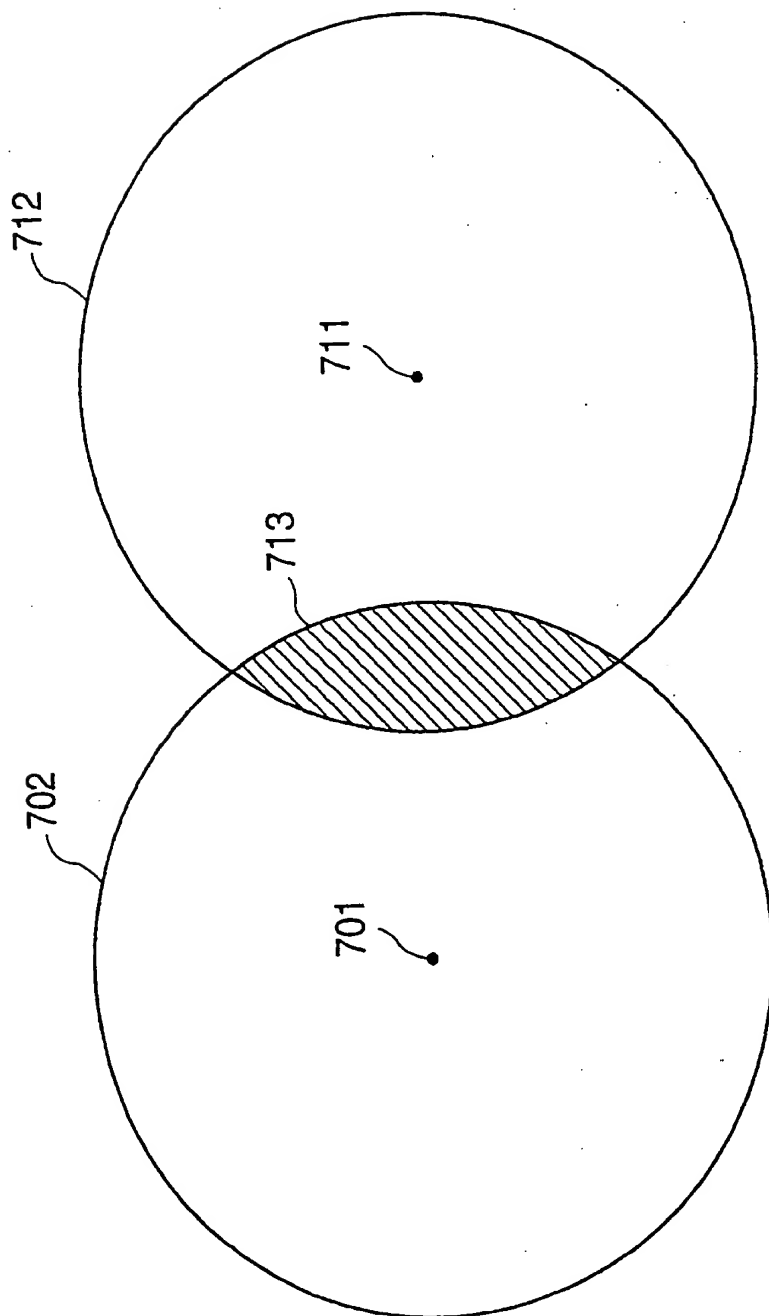


FIG. 53

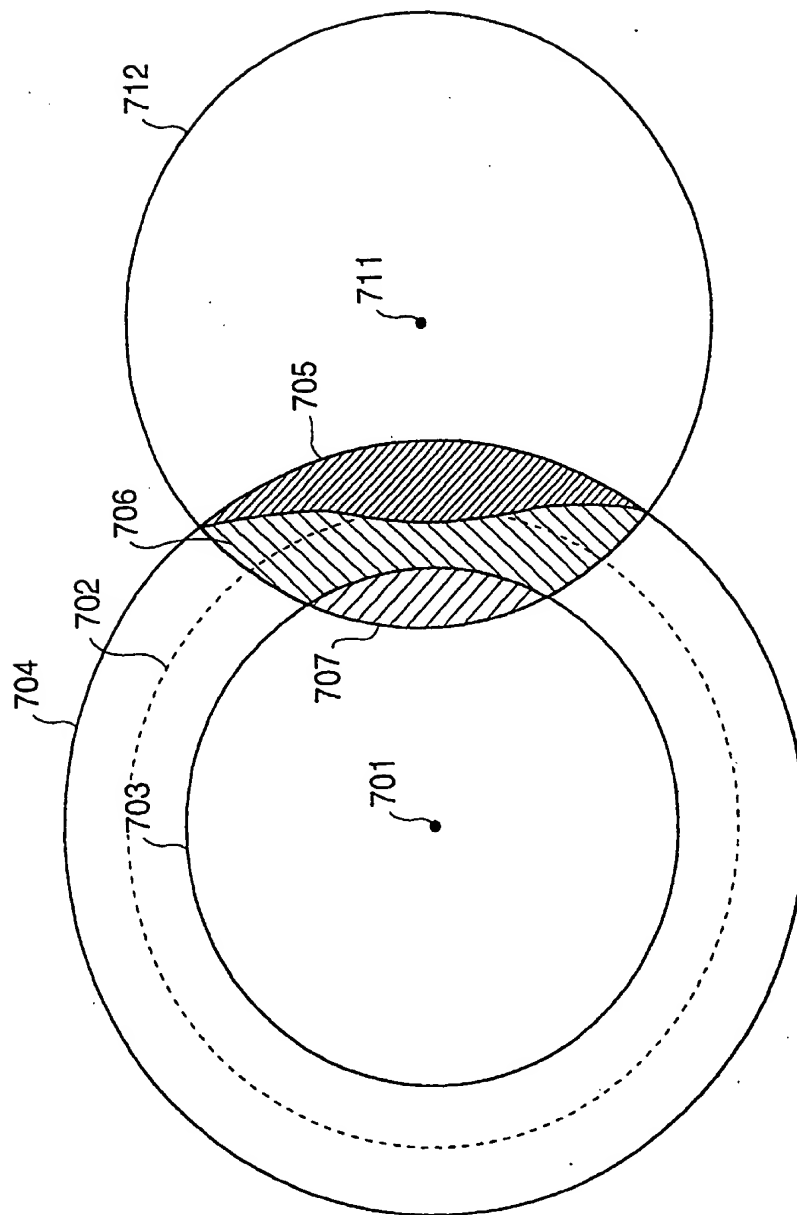


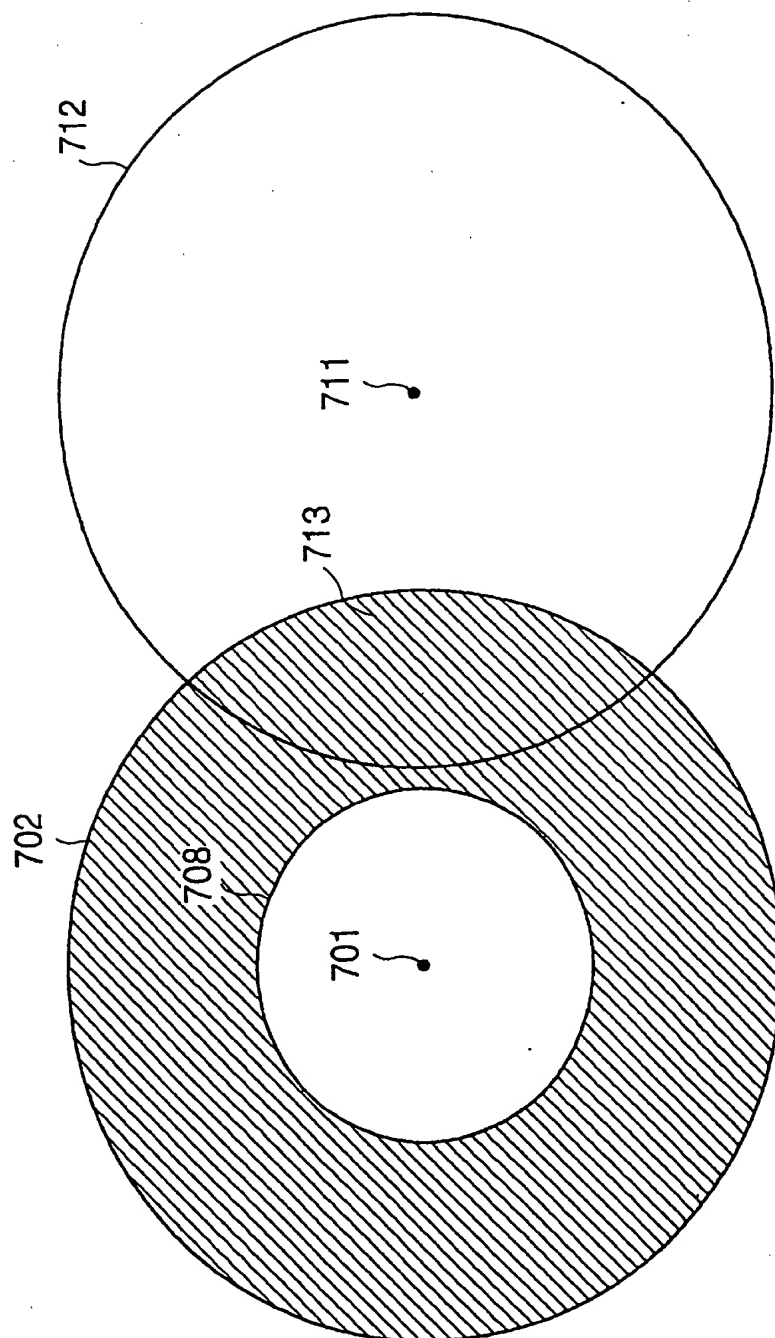
FIG. 54

FIG. 55

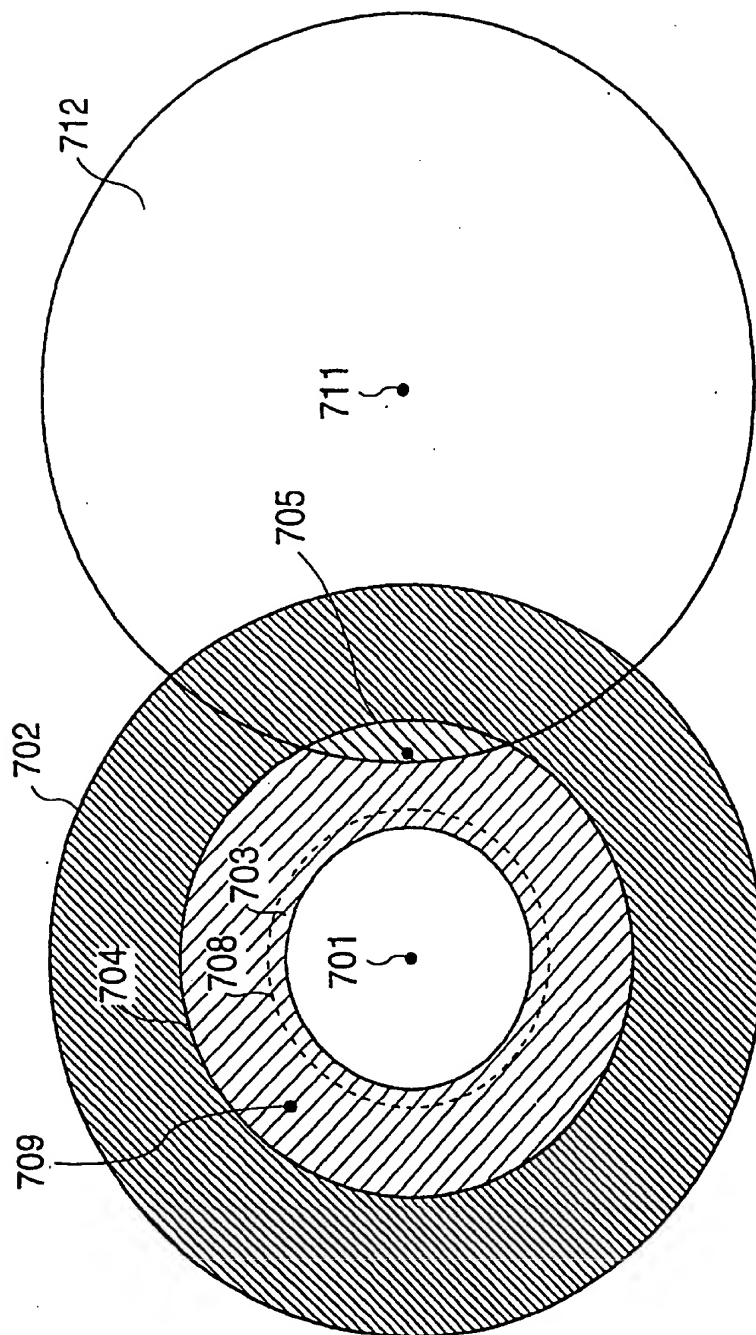


FIG. 56

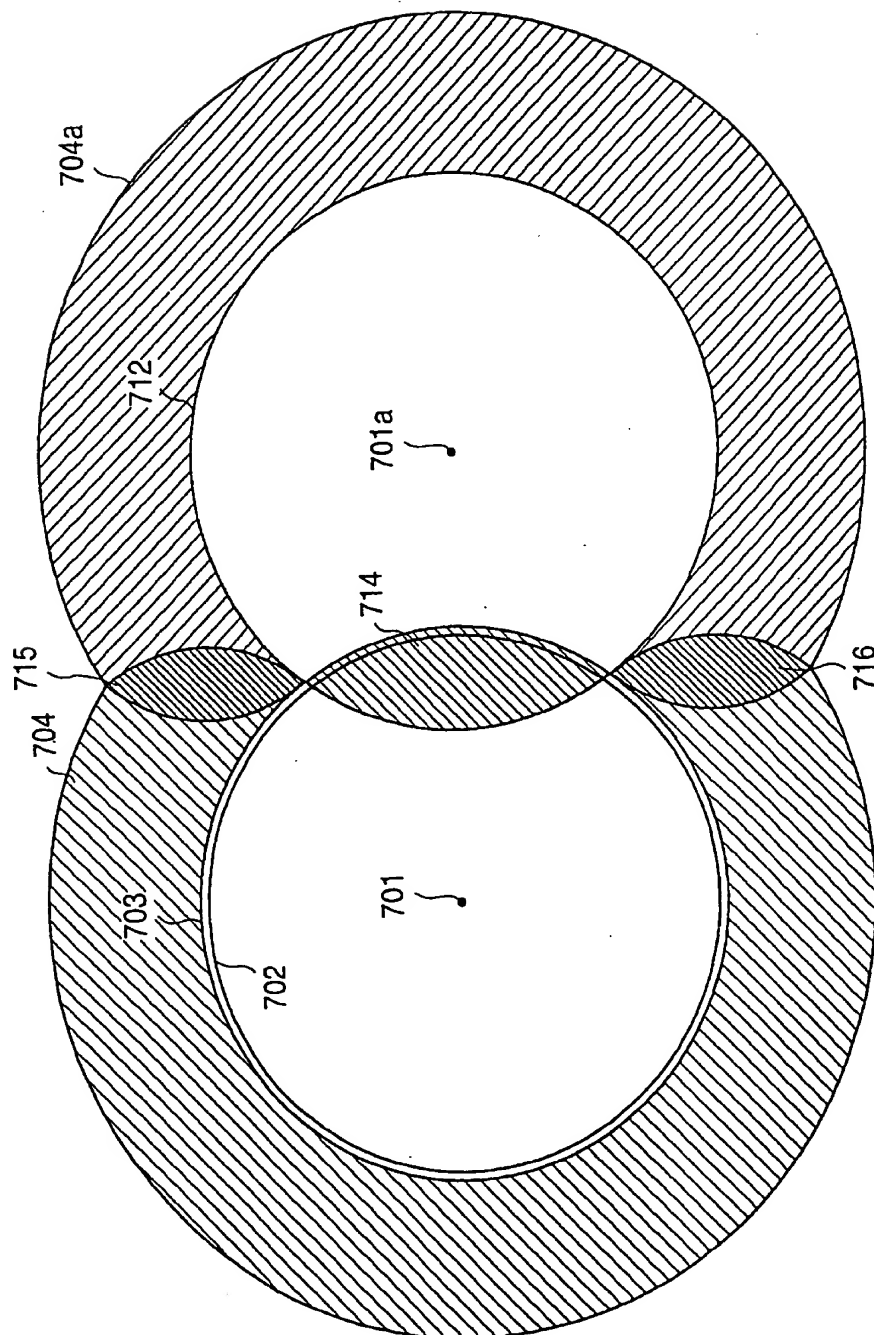


FIG. 57

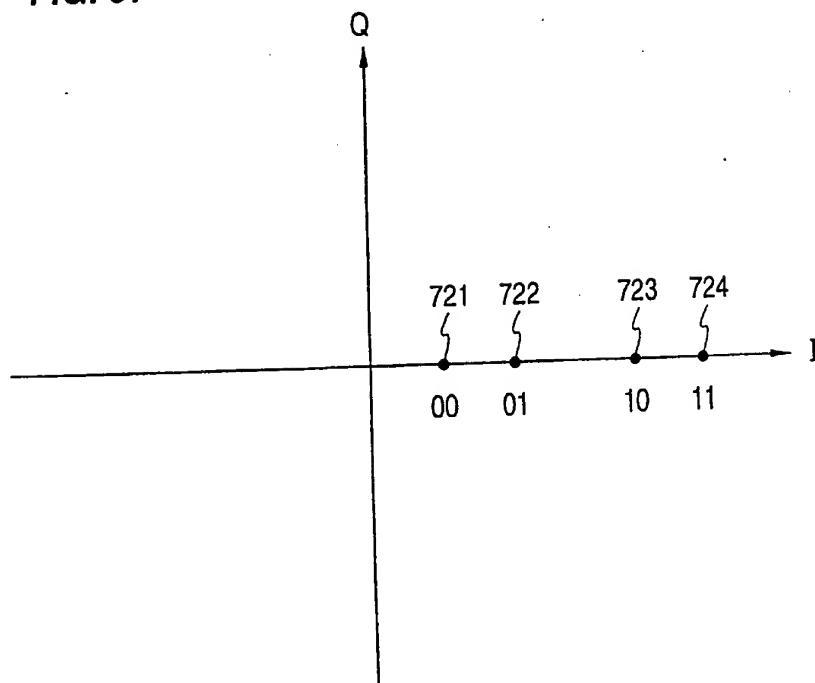


FIG. 58

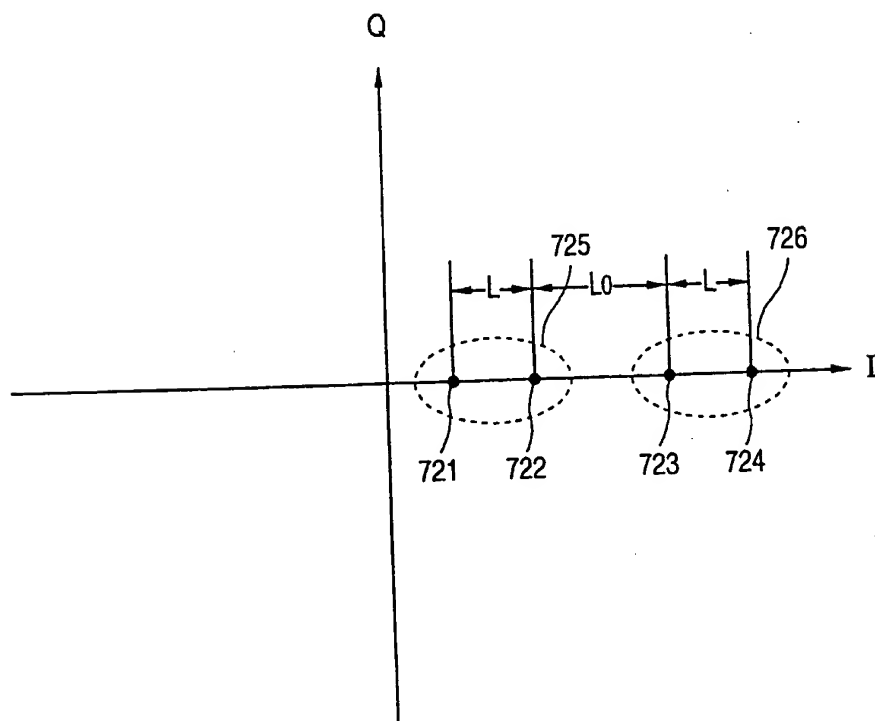


FIG. 59(c)

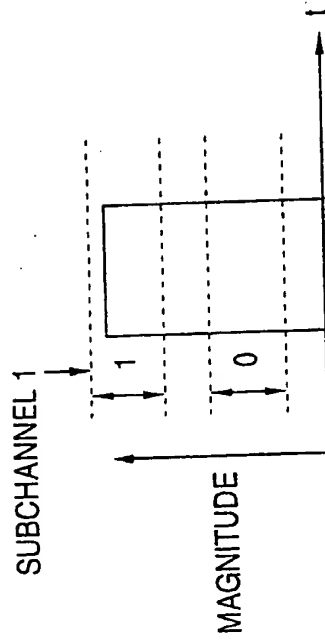


FIG. 59(d)

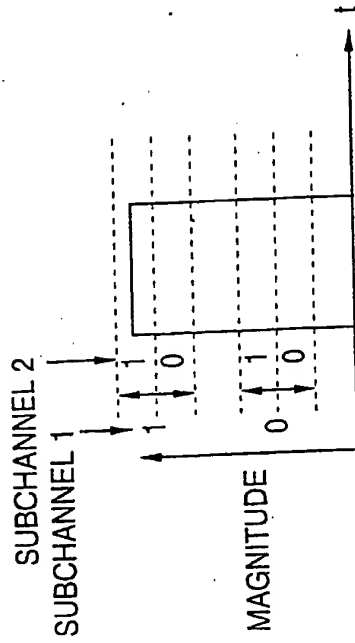


FIG. 59(a)

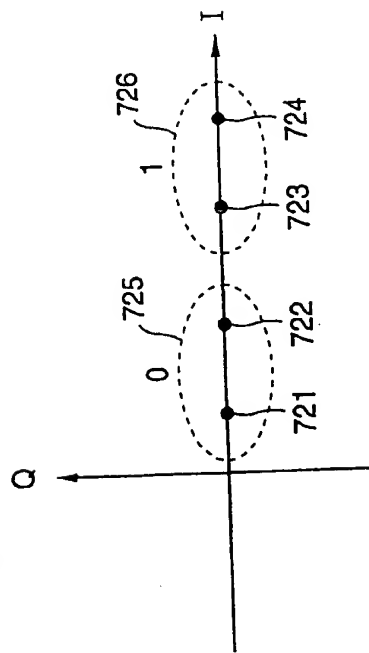


FIG. 59(b)

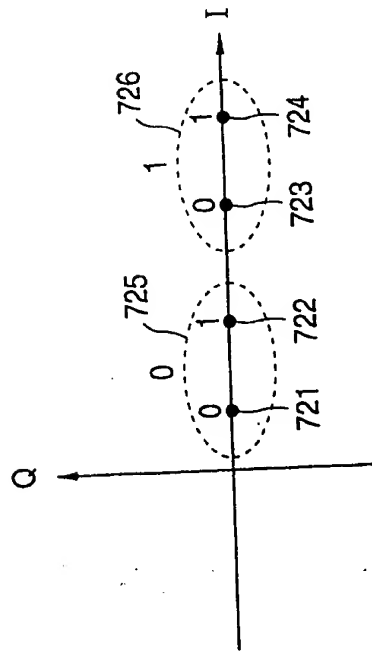


FIG. 60

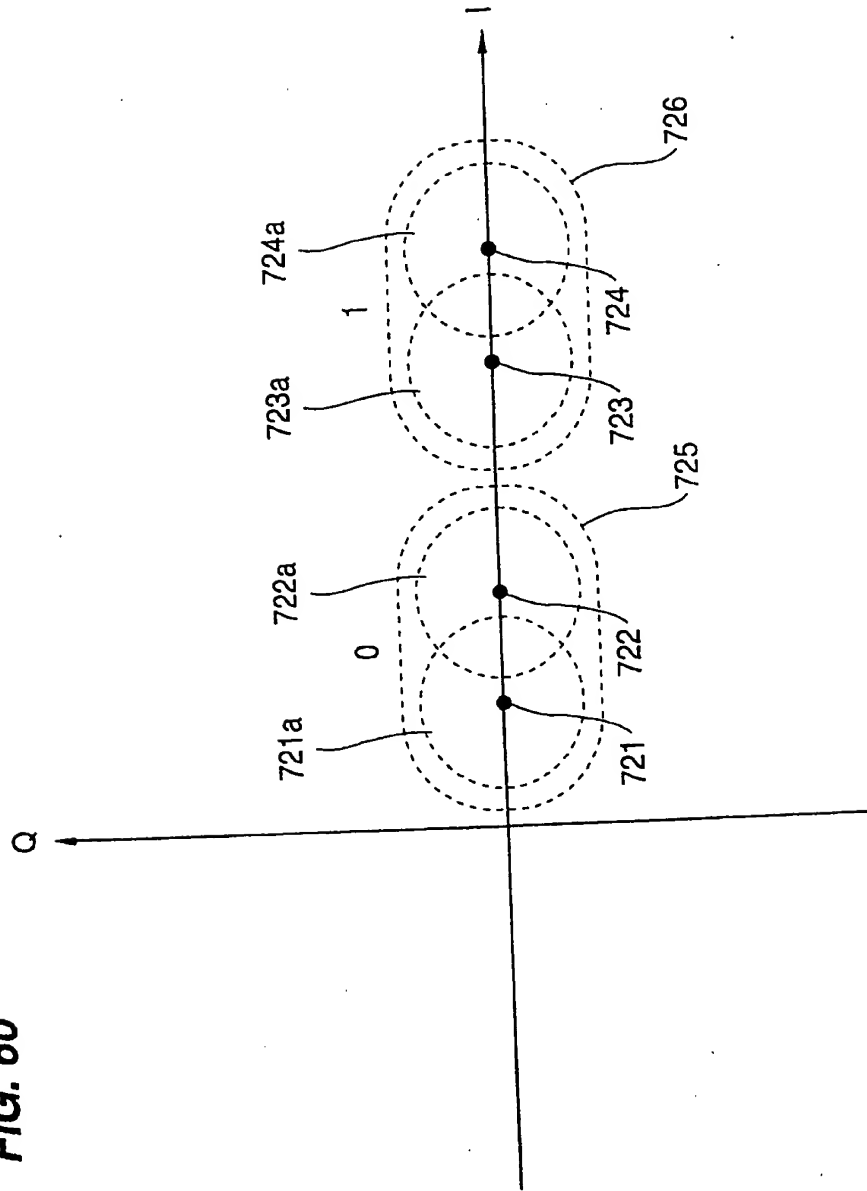


FIG. 61

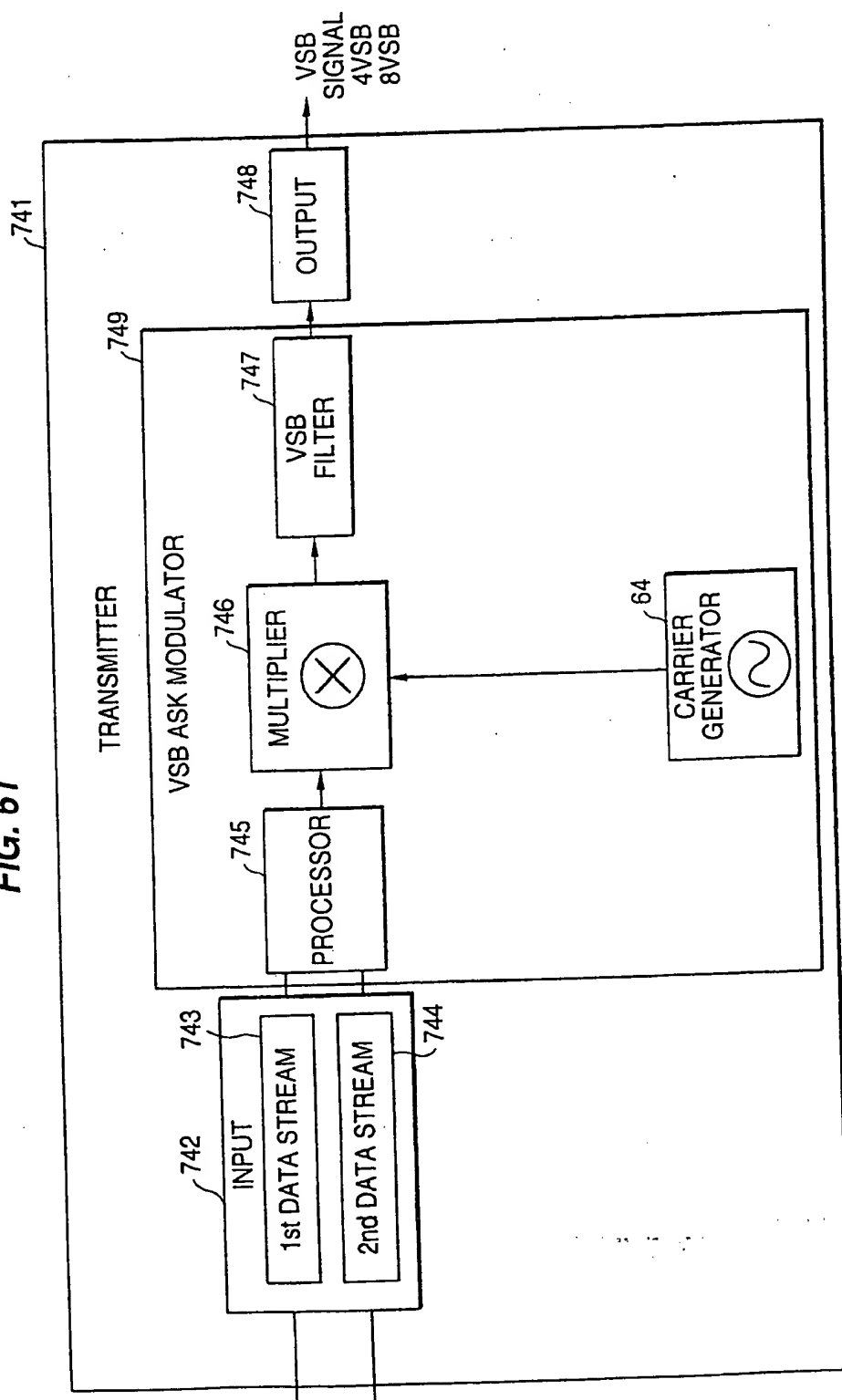


FIG. 62(a)

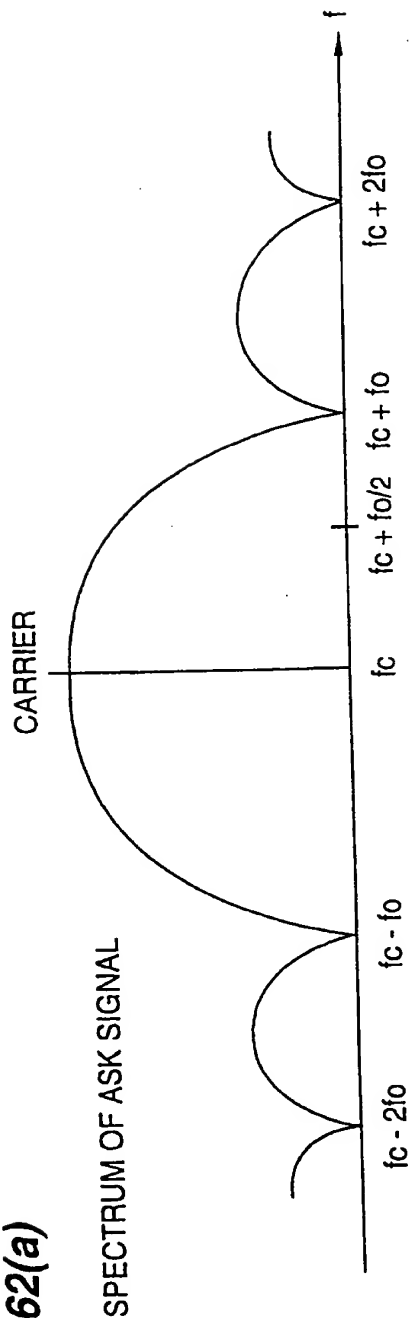


FIG. 62(b)

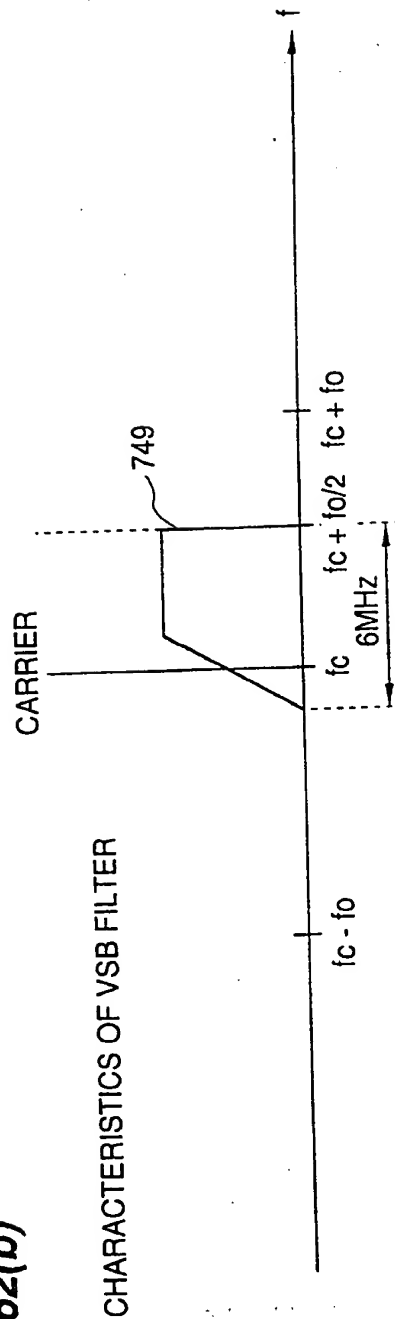


FIG. 63

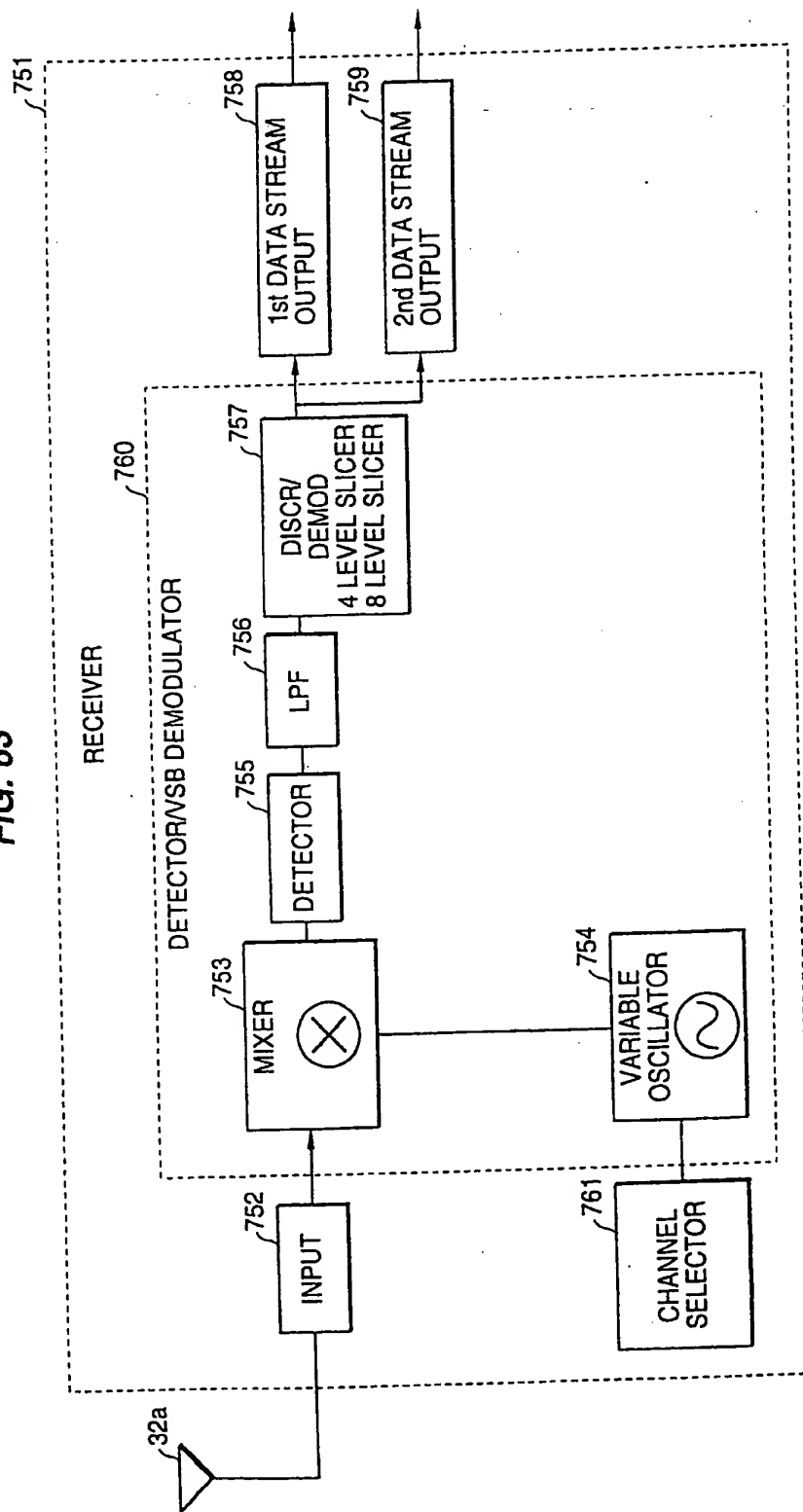


FIG. 64

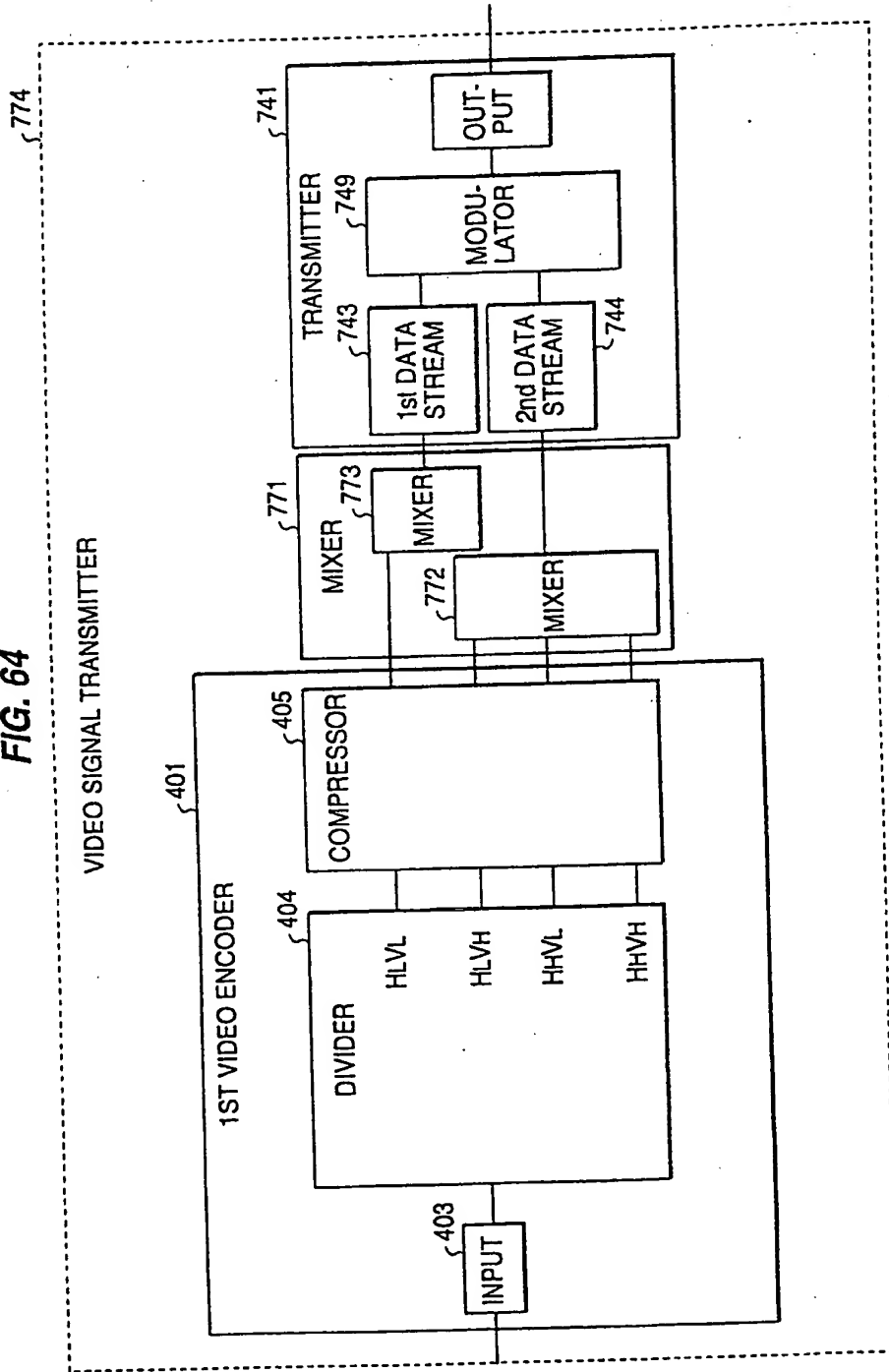


FIG. 65

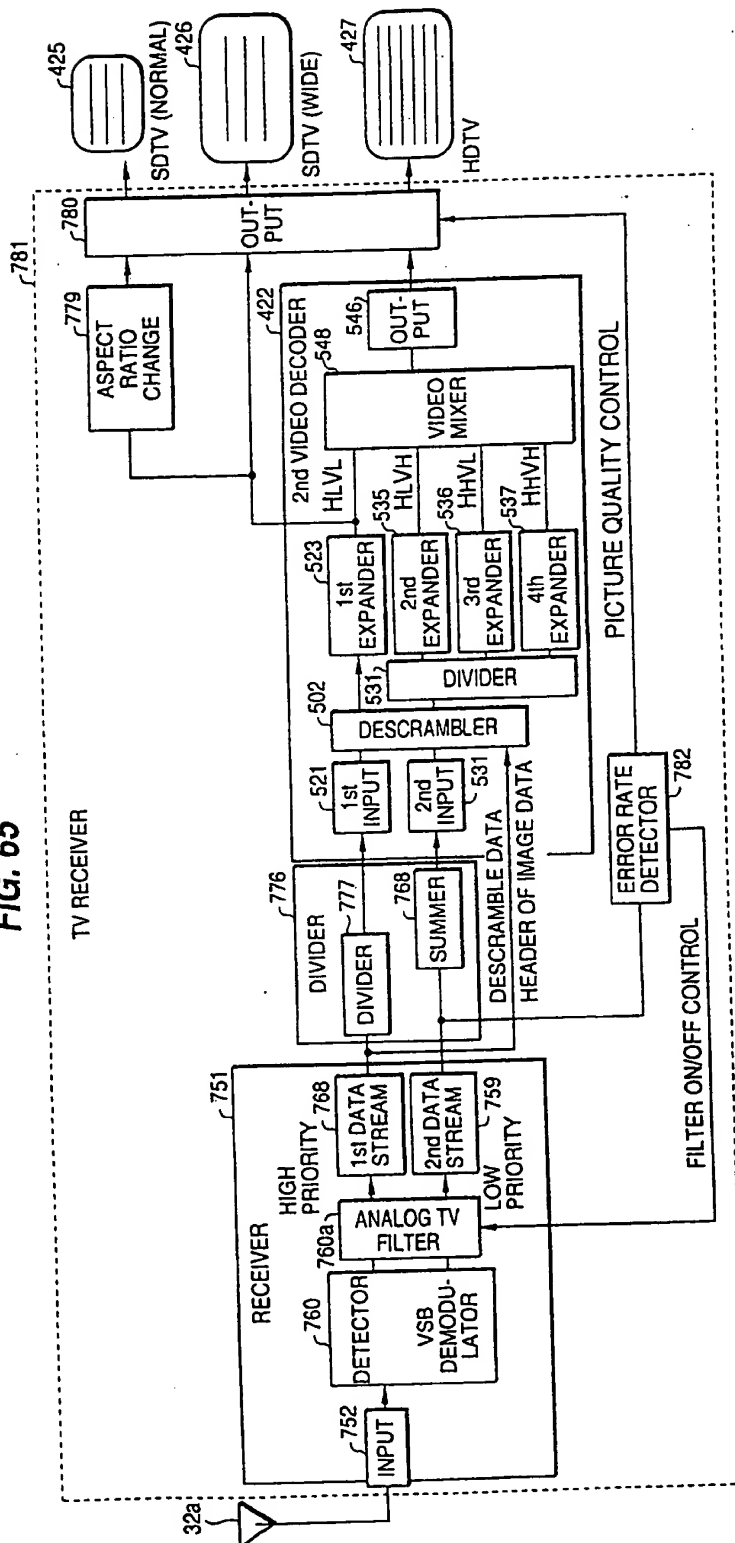
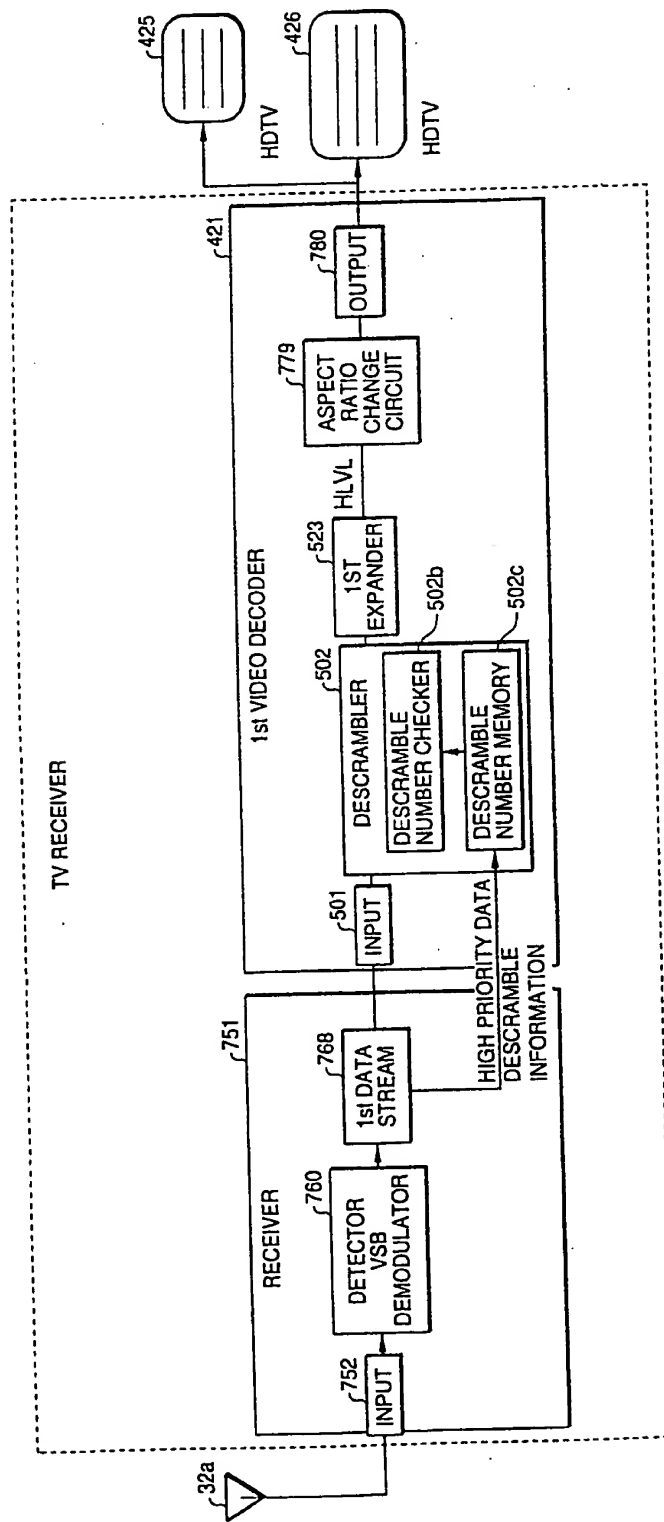
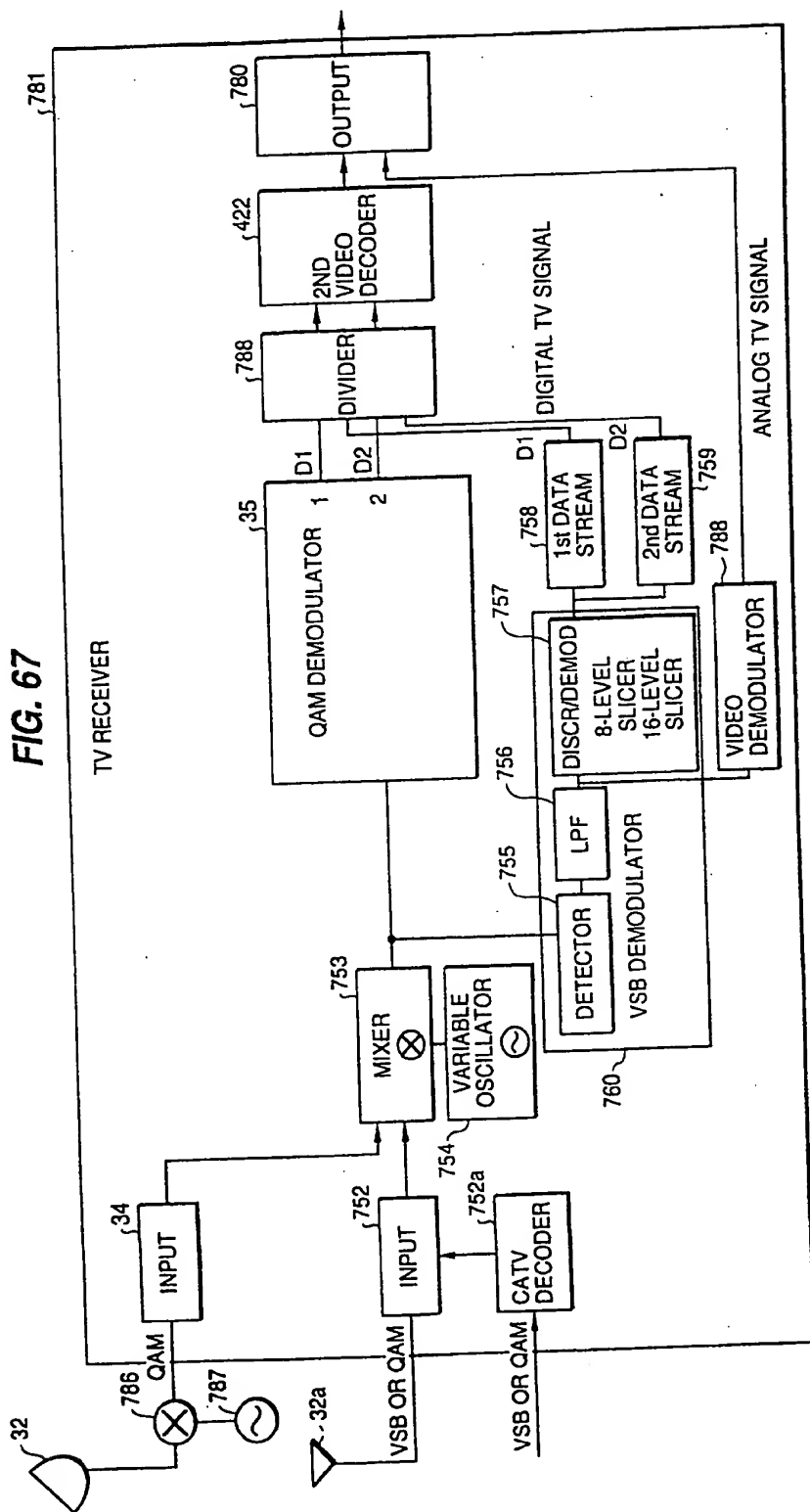


FIG. 66





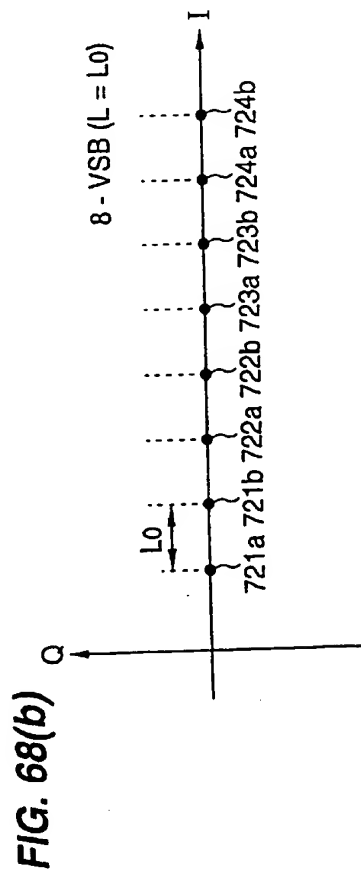
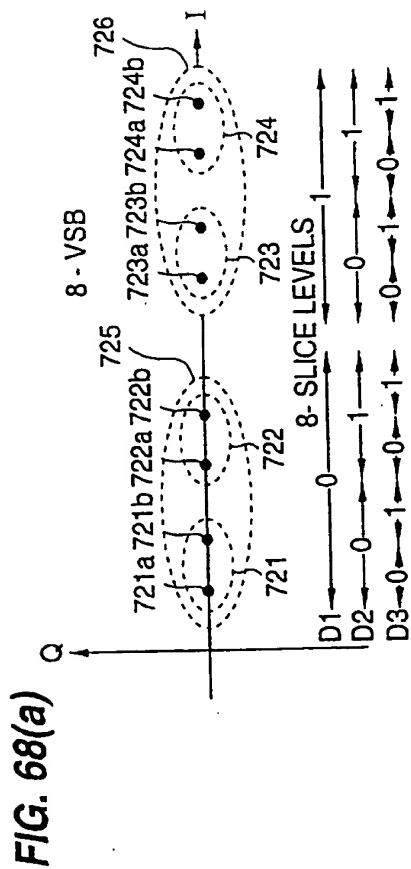


FIG. 68(c)

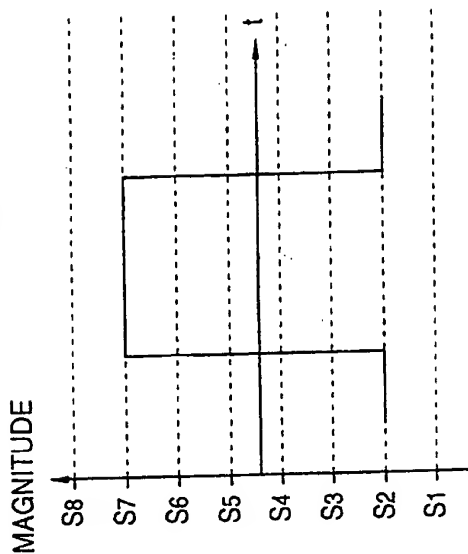


FIG. 69

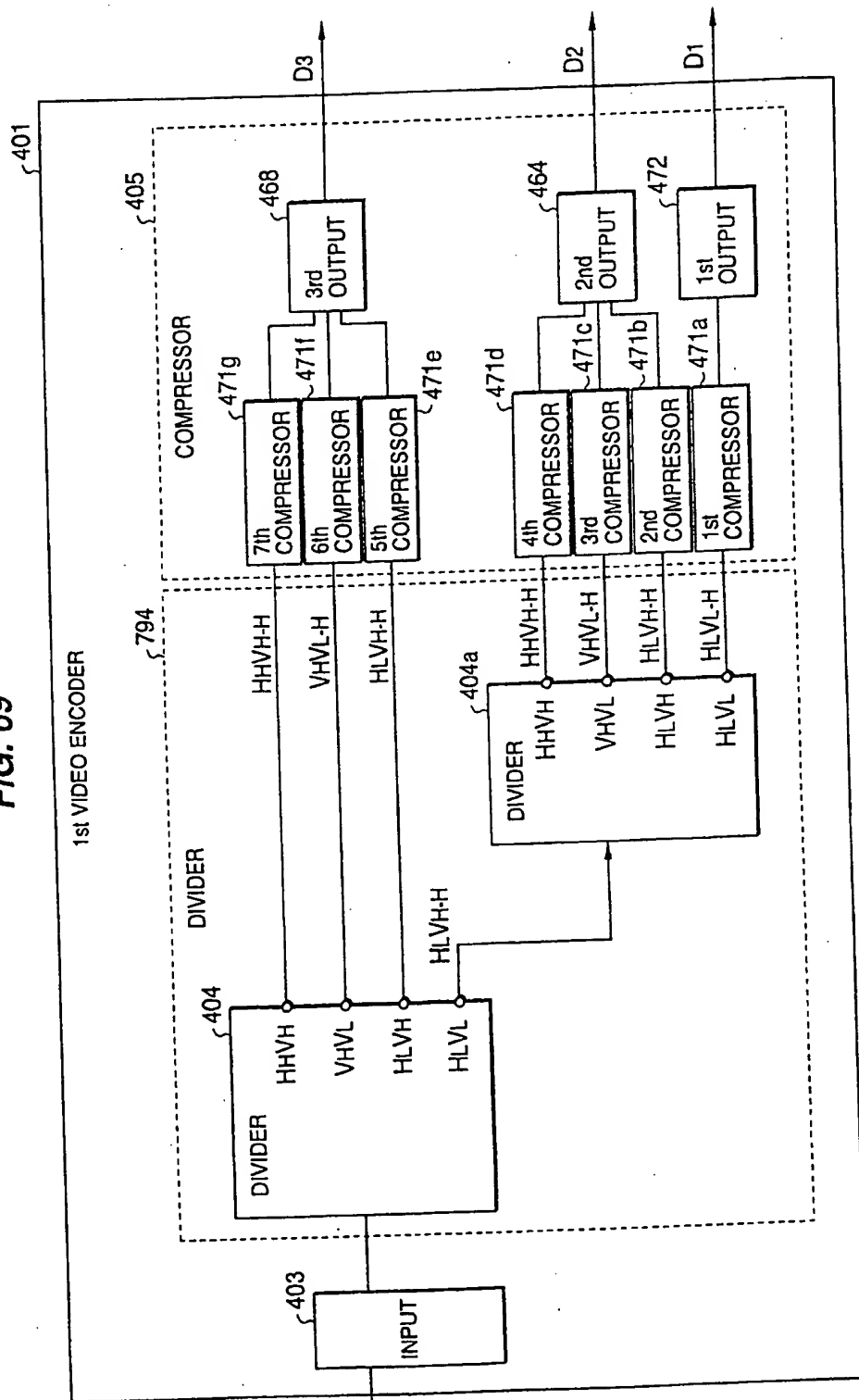


FIG. 70

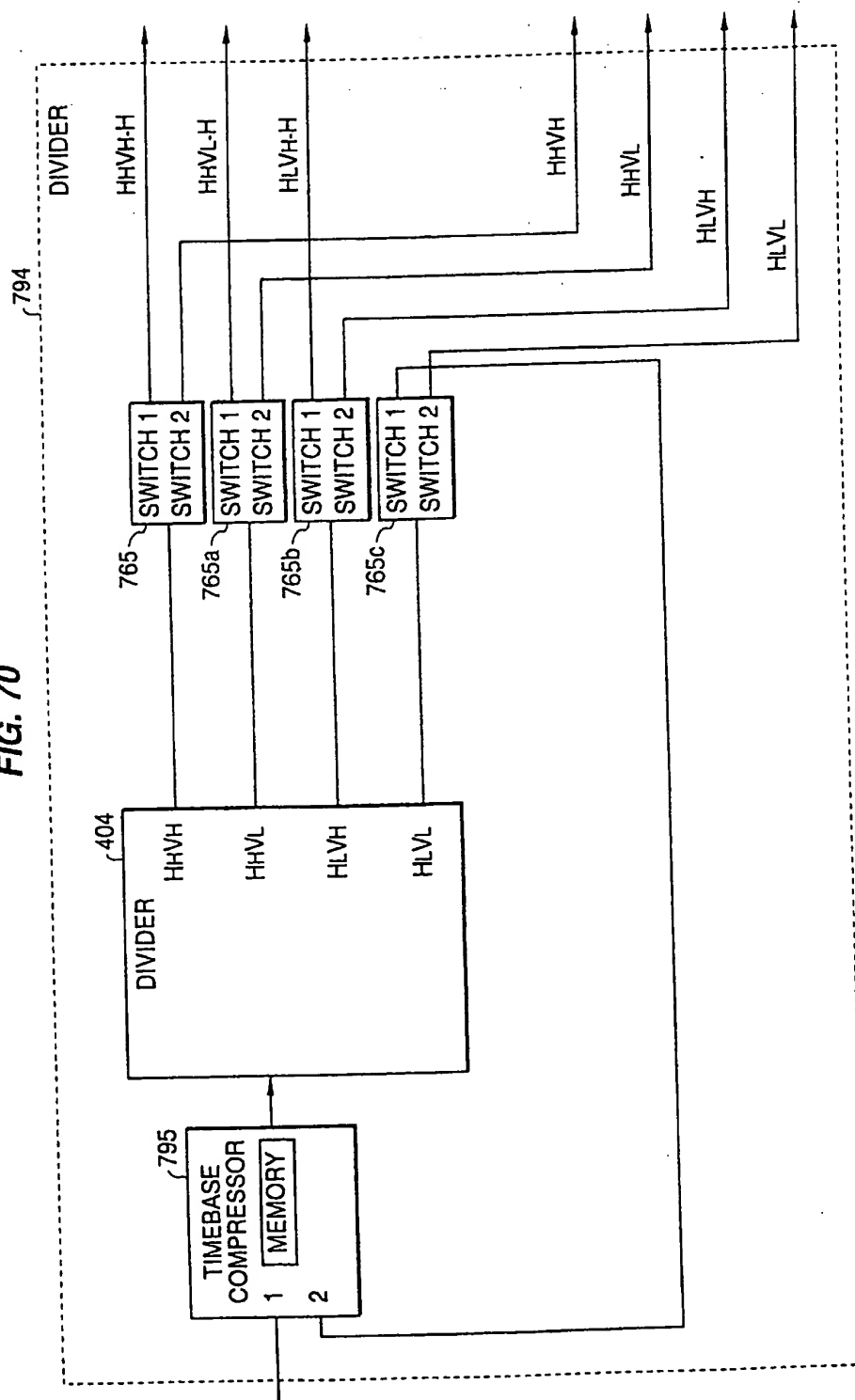


FIG. 71

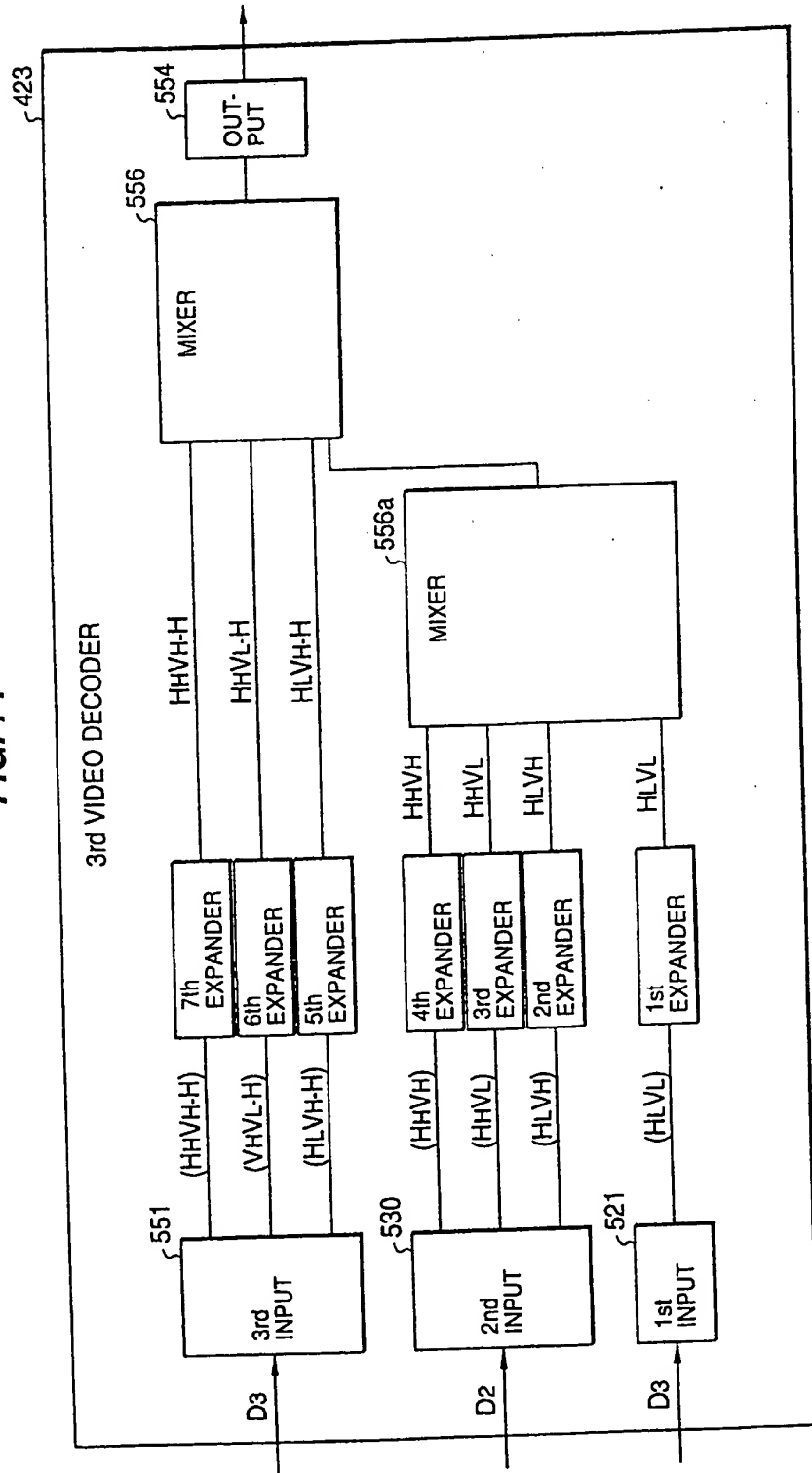


FIG. 72

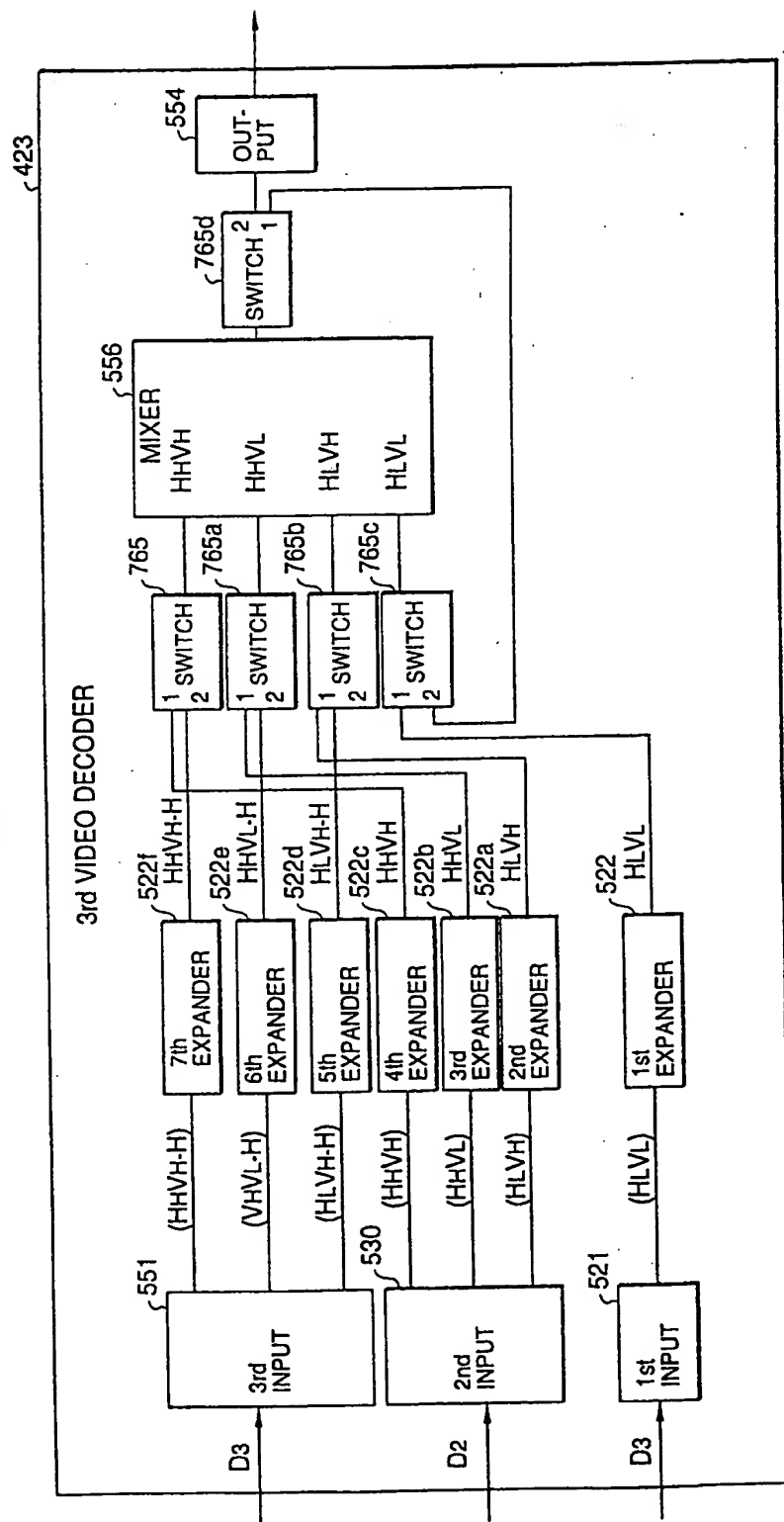


FIG. 73

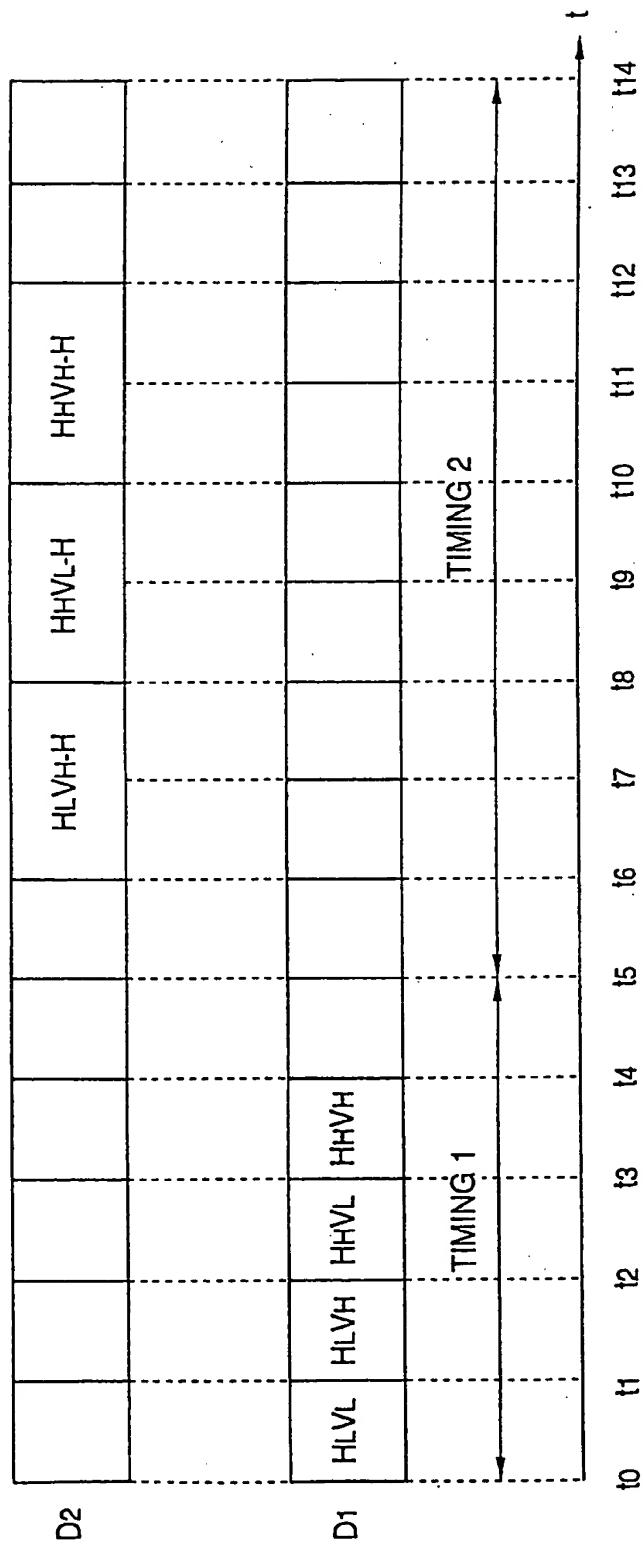


FIG. 74(a)

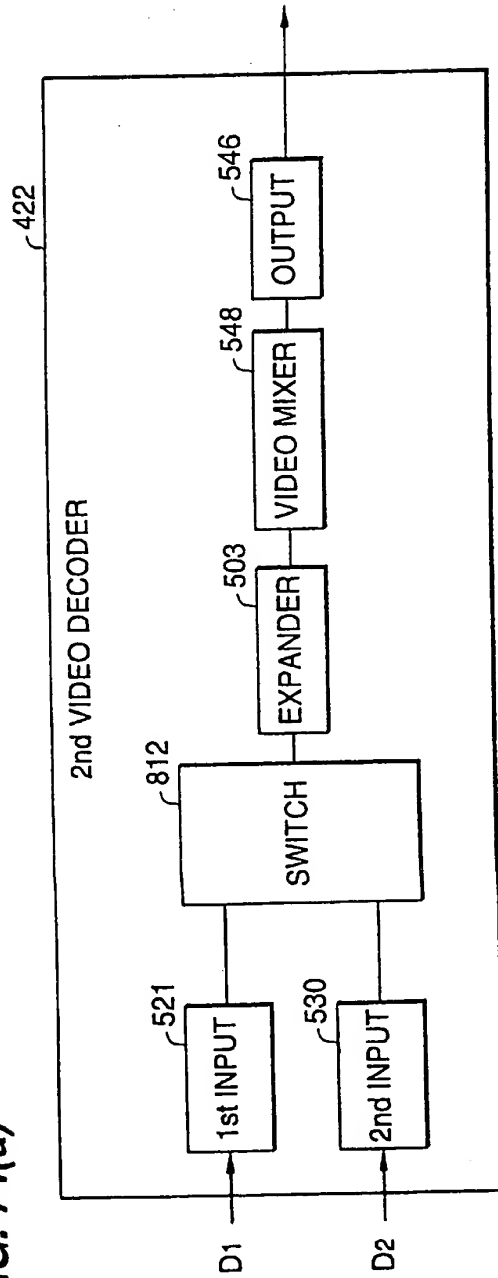


FIG. 74(b)

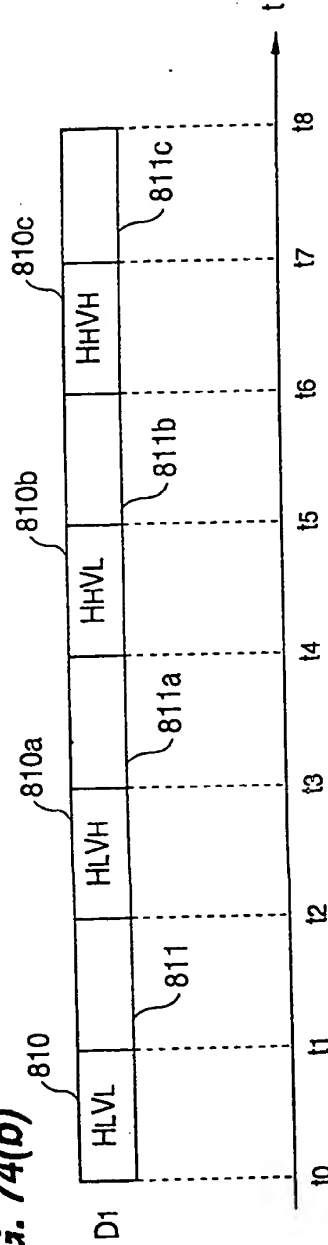


FIG. 75

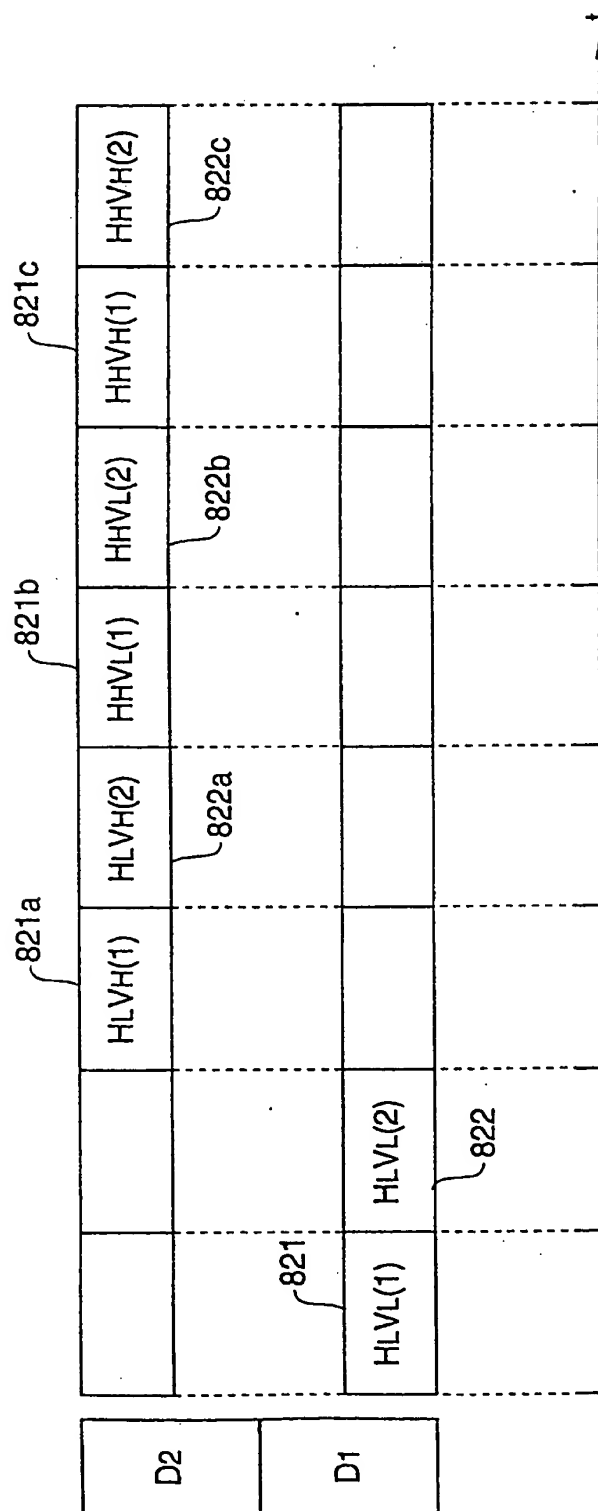


FIG. 76

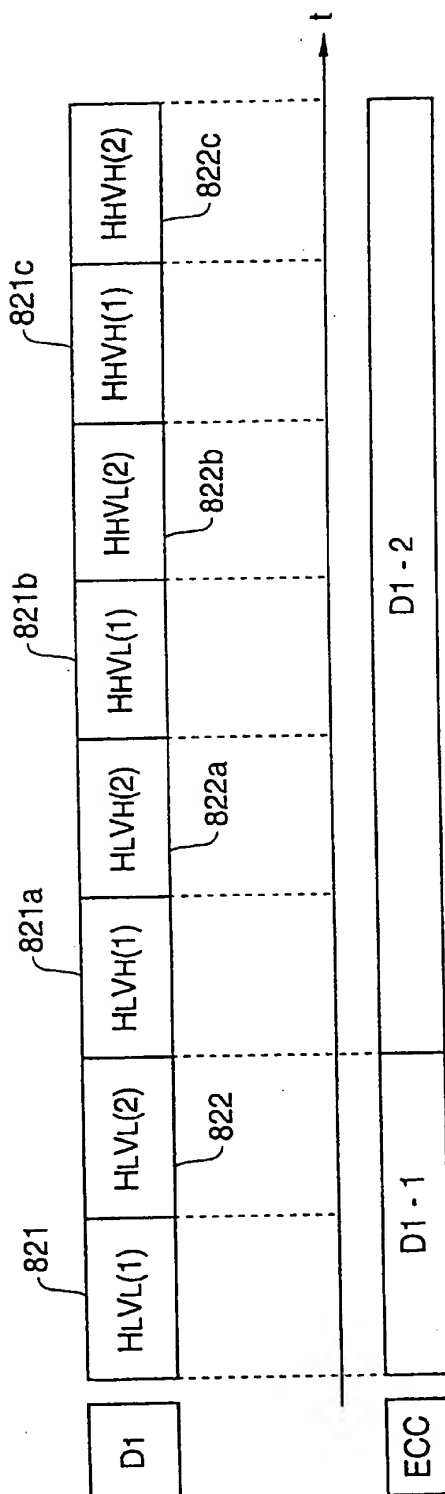


FIG. 78

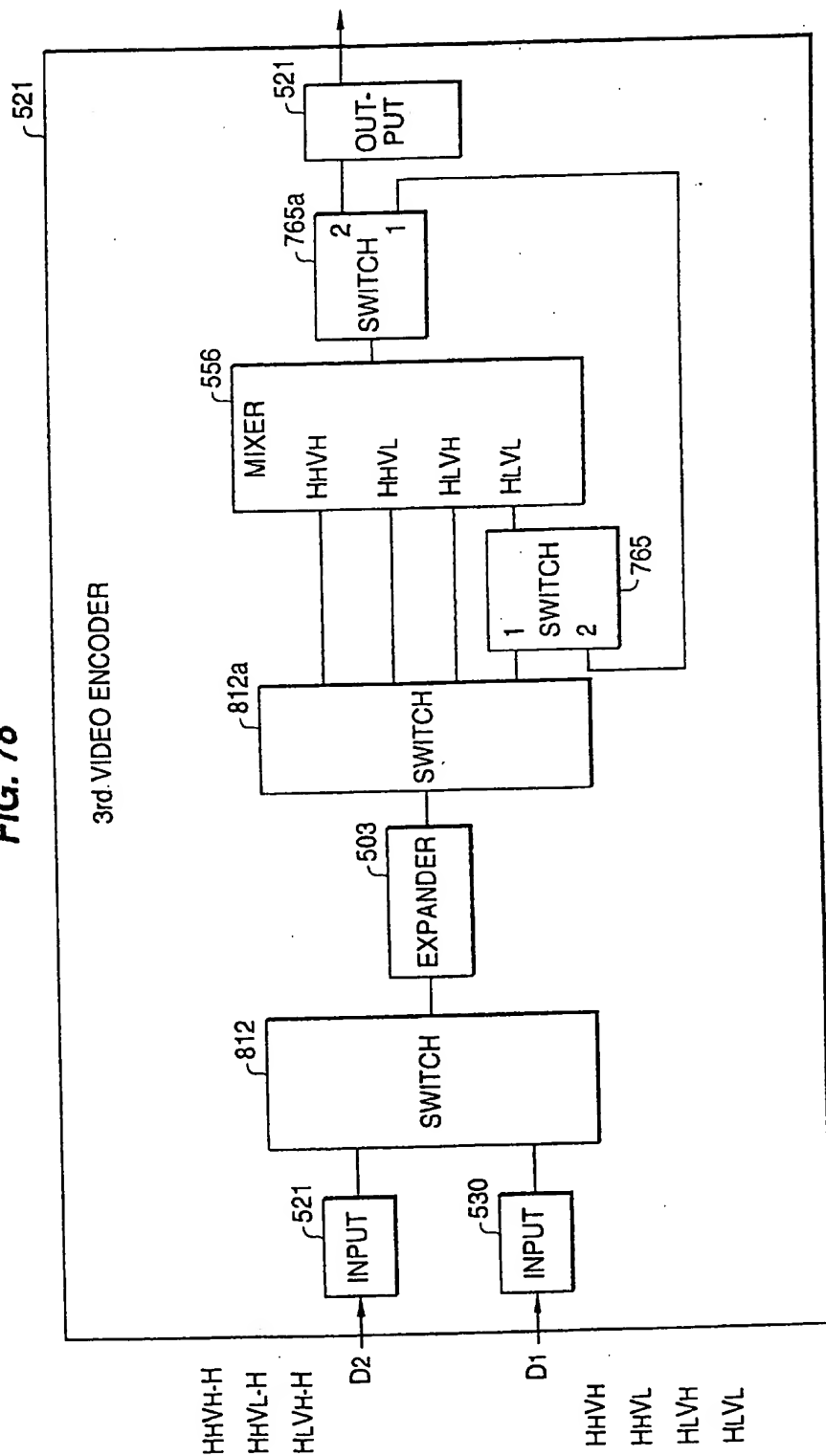


FIG. 79

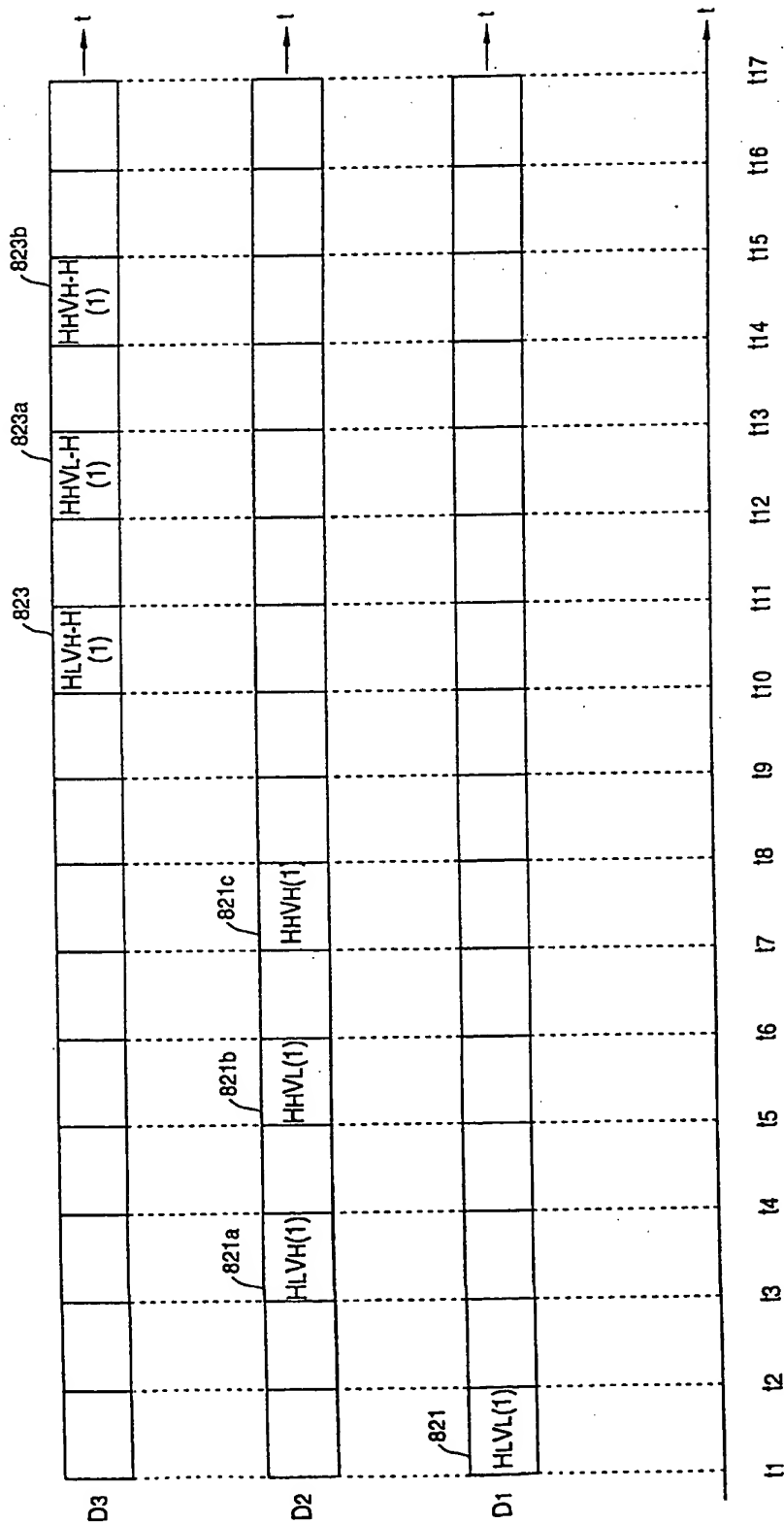


FIG. 80

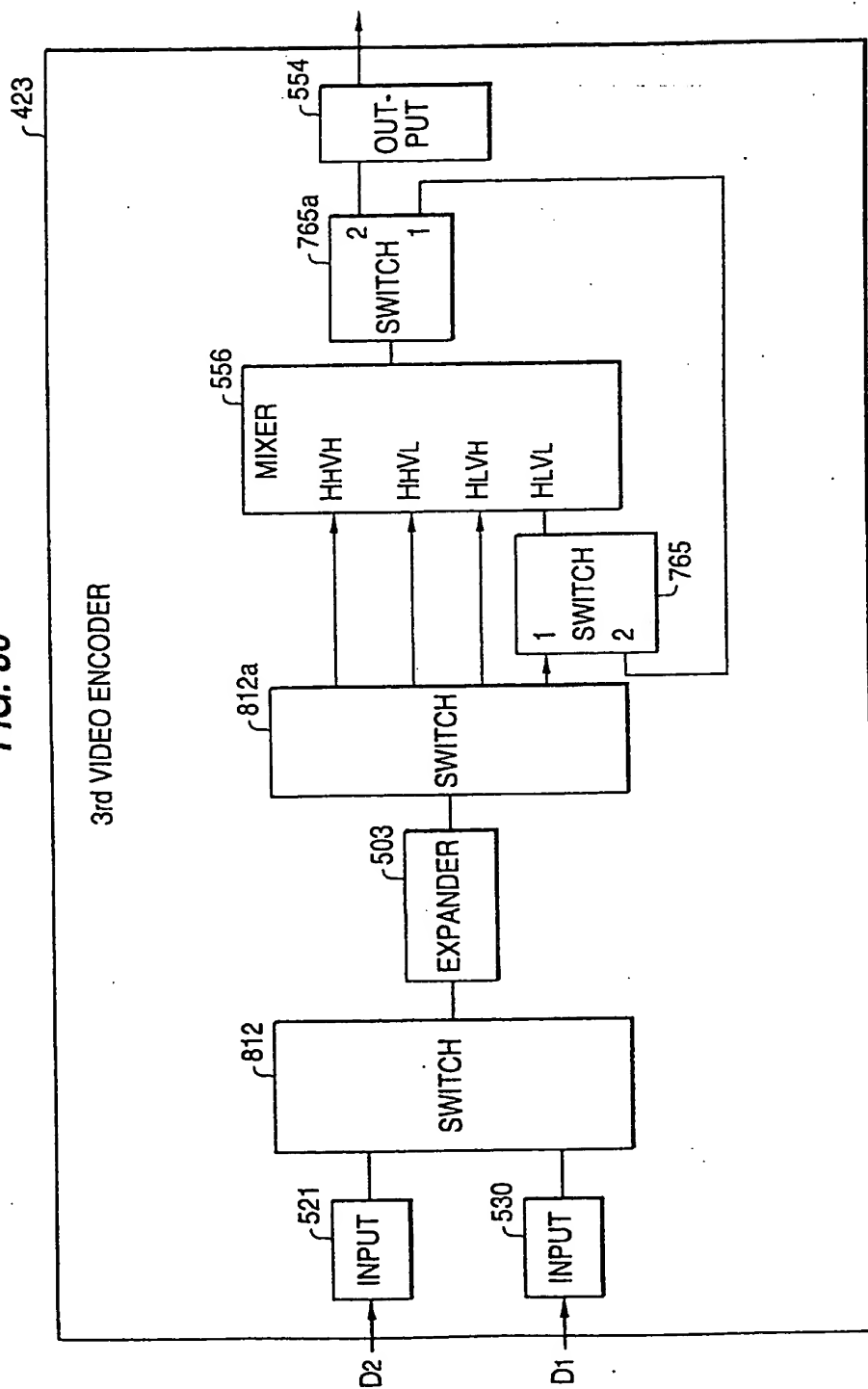


FIG. 81

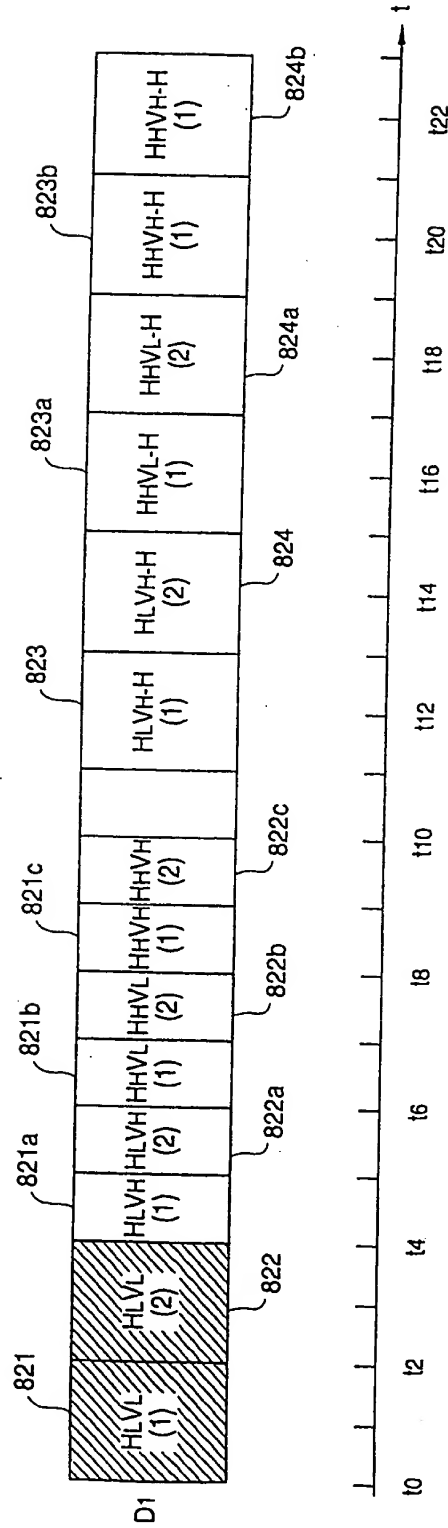


FIG. 82

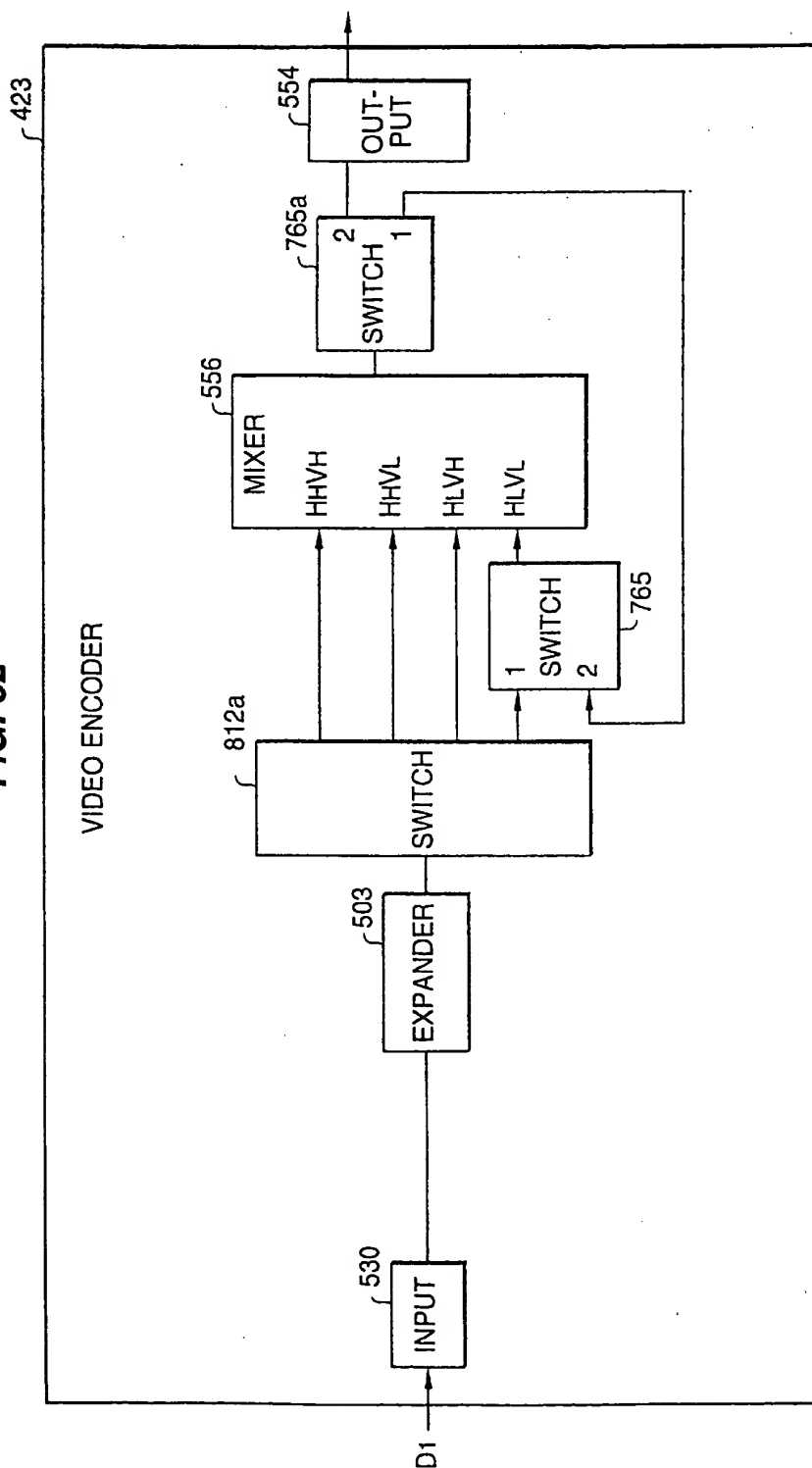


FIG. 83

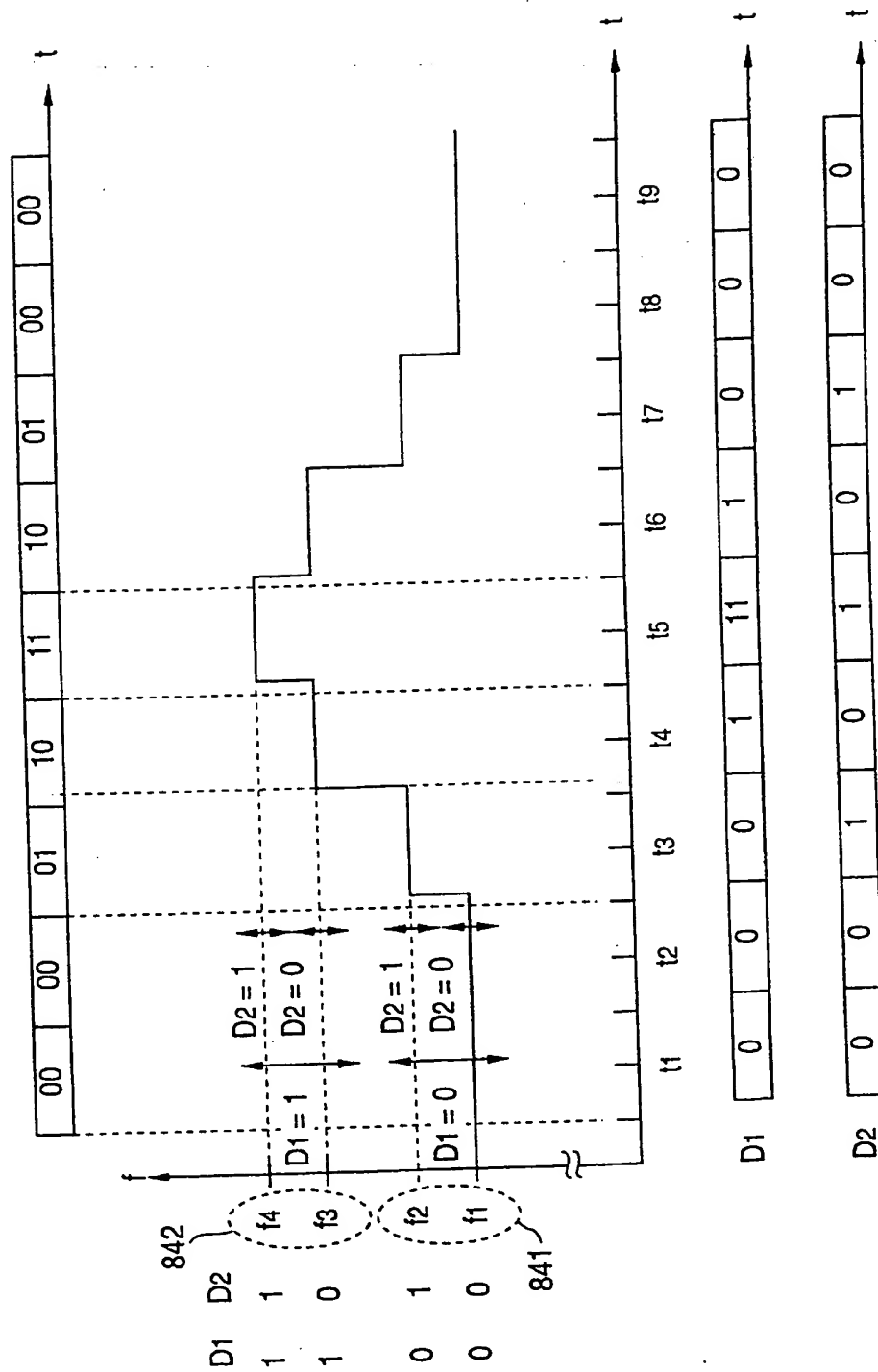


FIG. 84

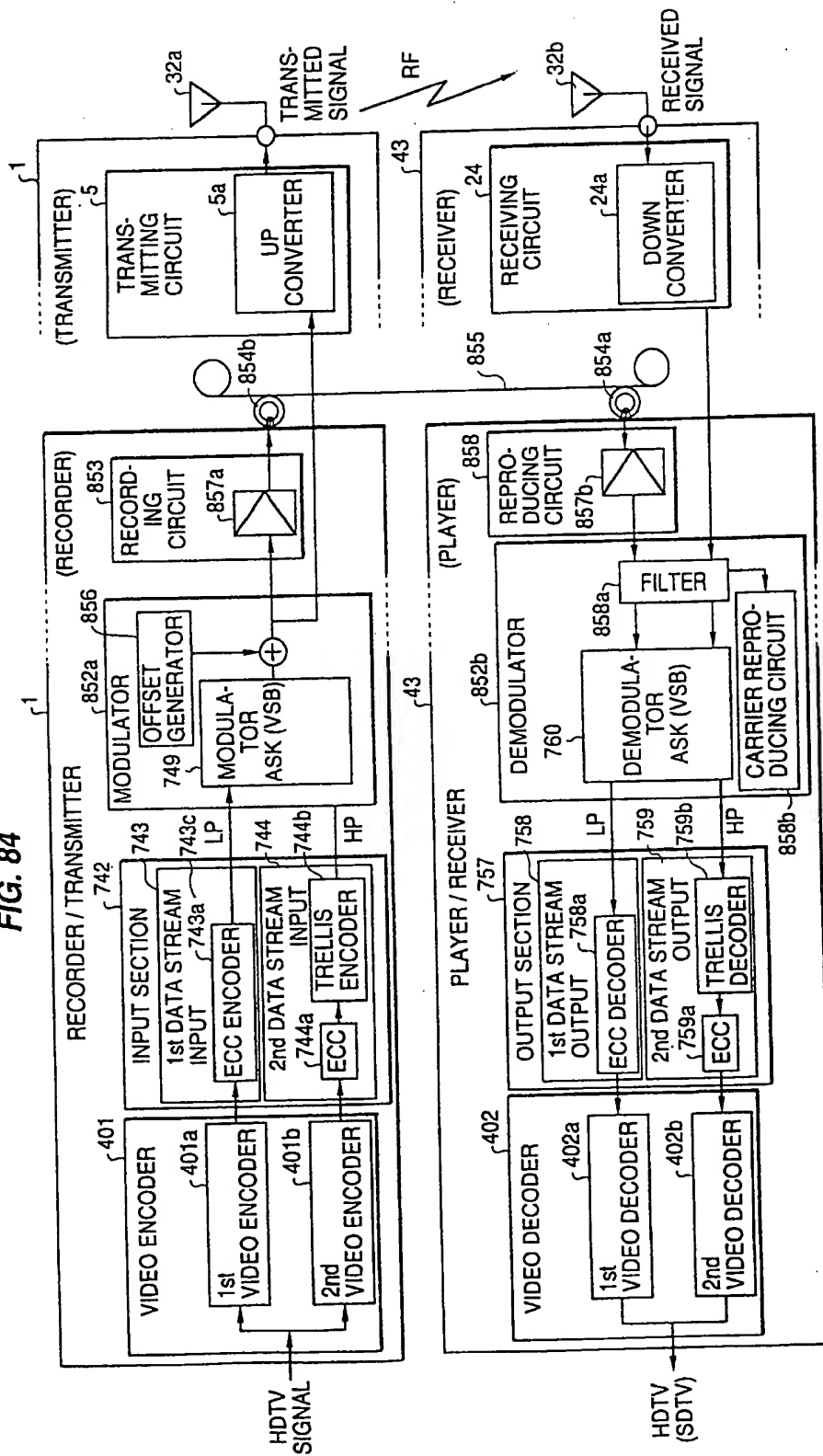


FIG. 85

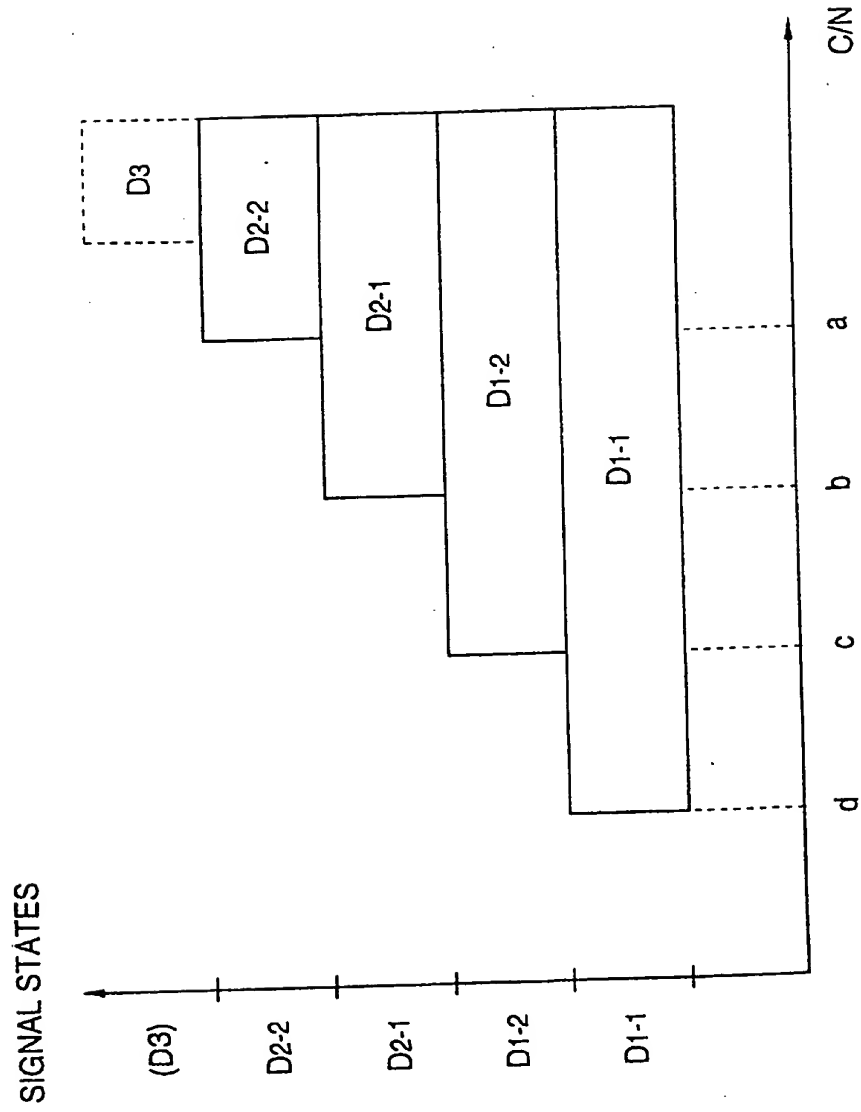


FIG. 86

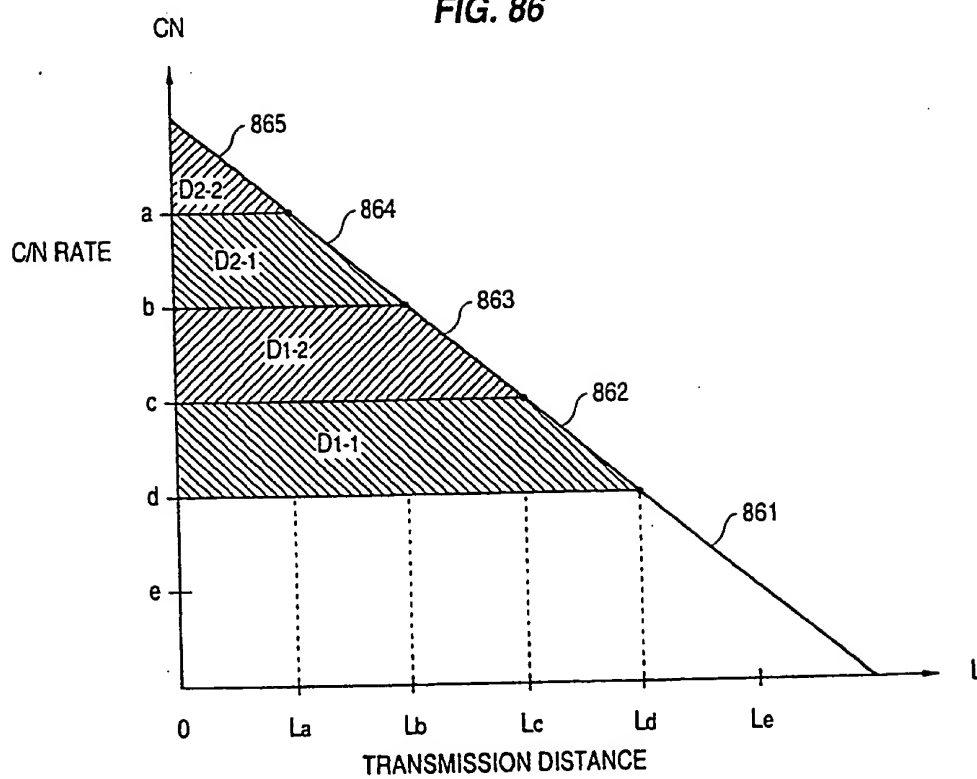


FIG. 87

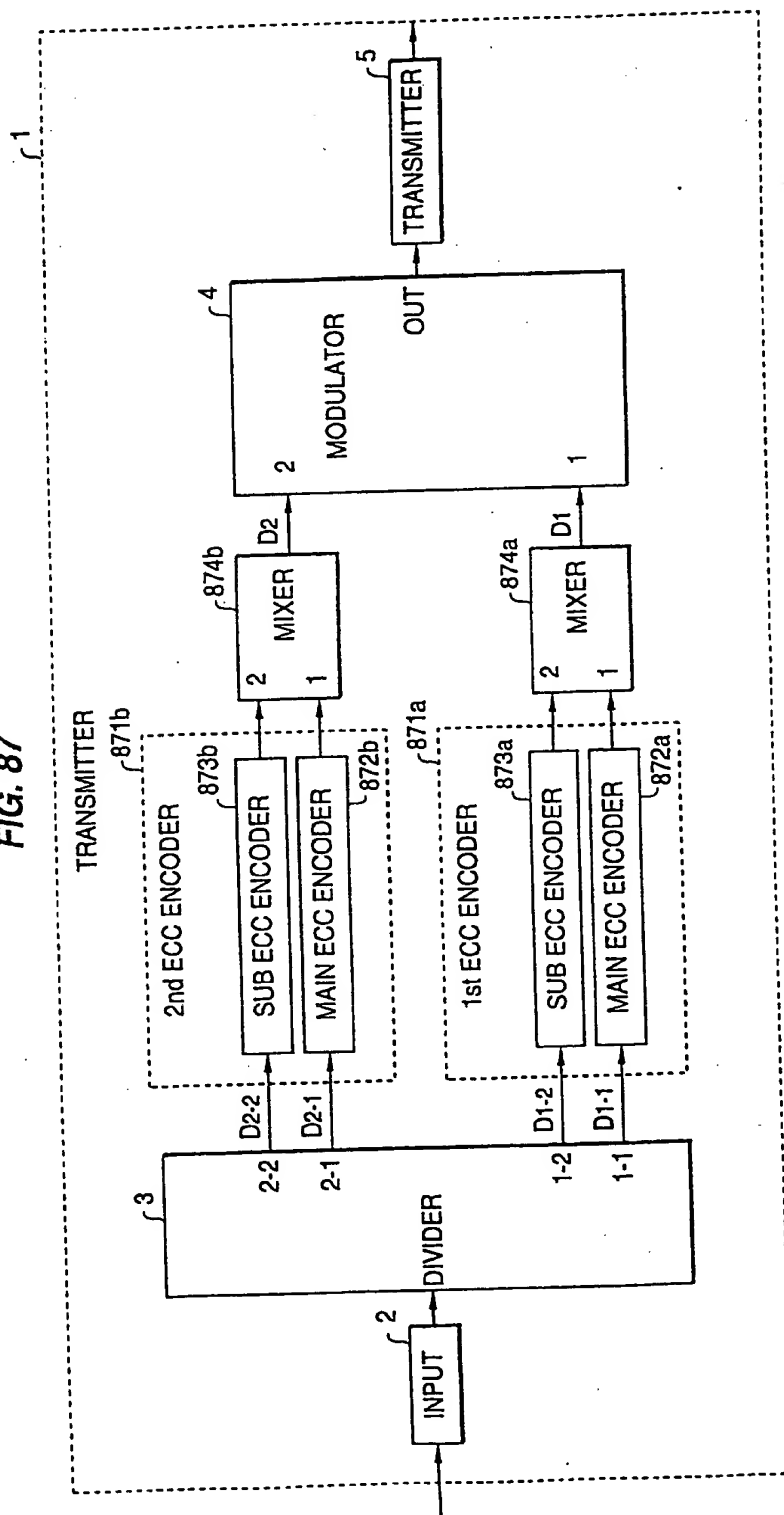


FIG. 88

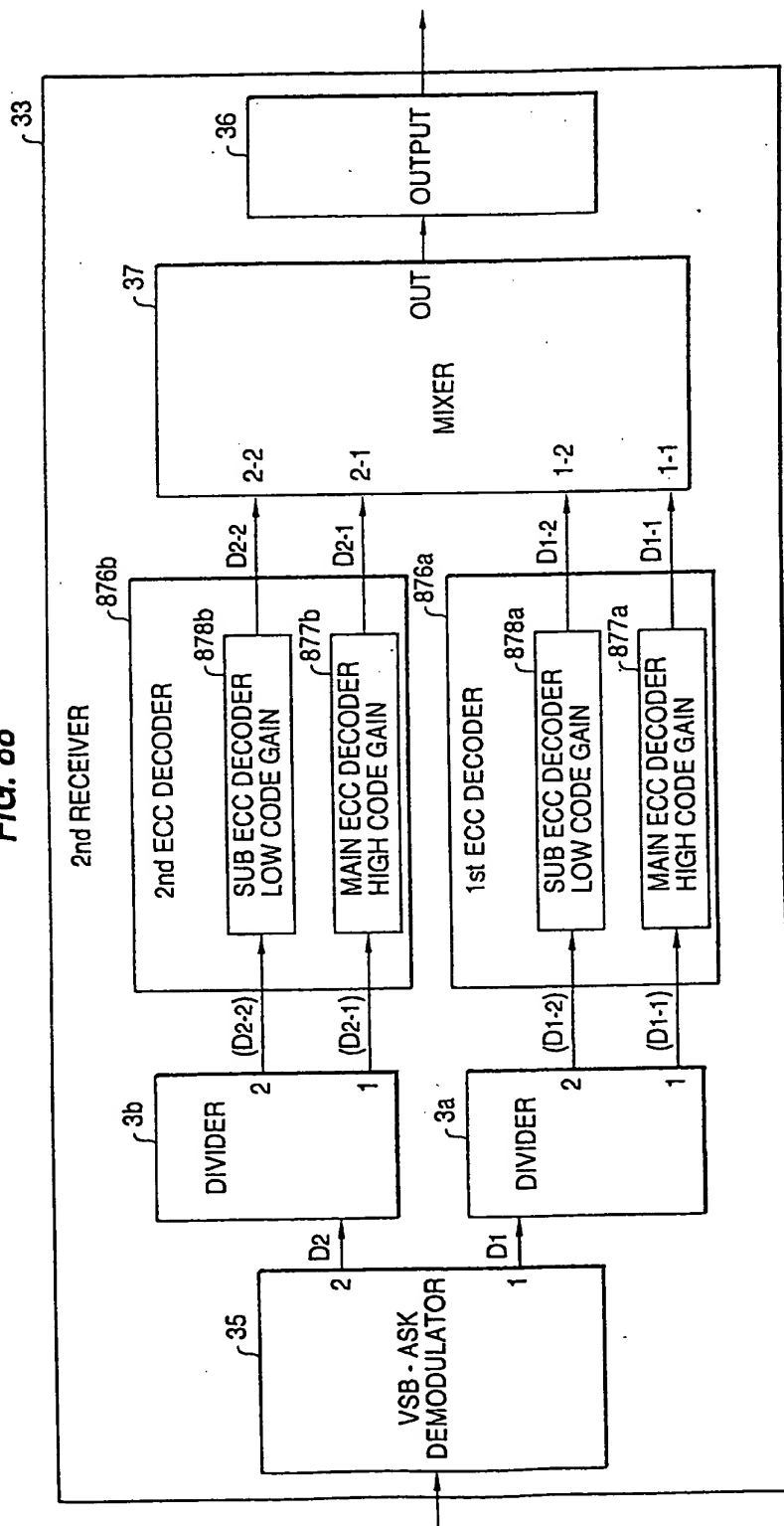


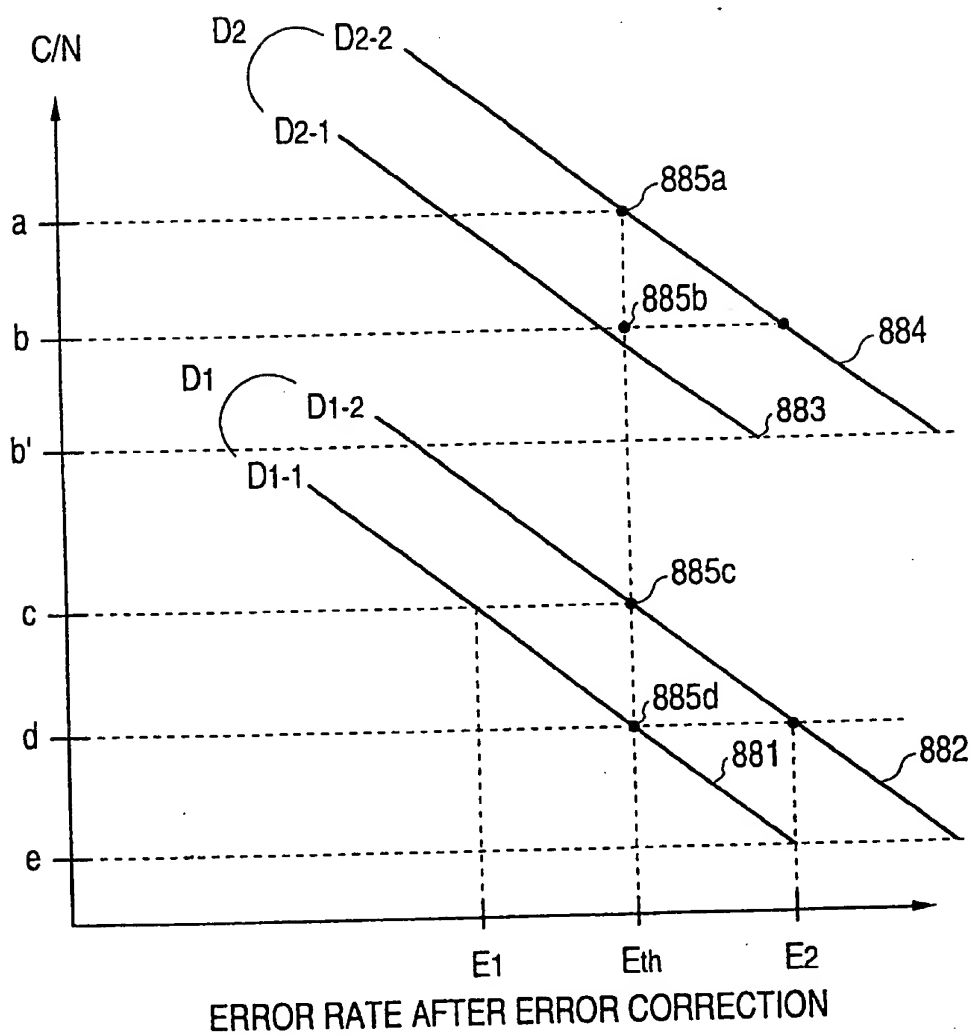
FIG. 89

FIG. 90

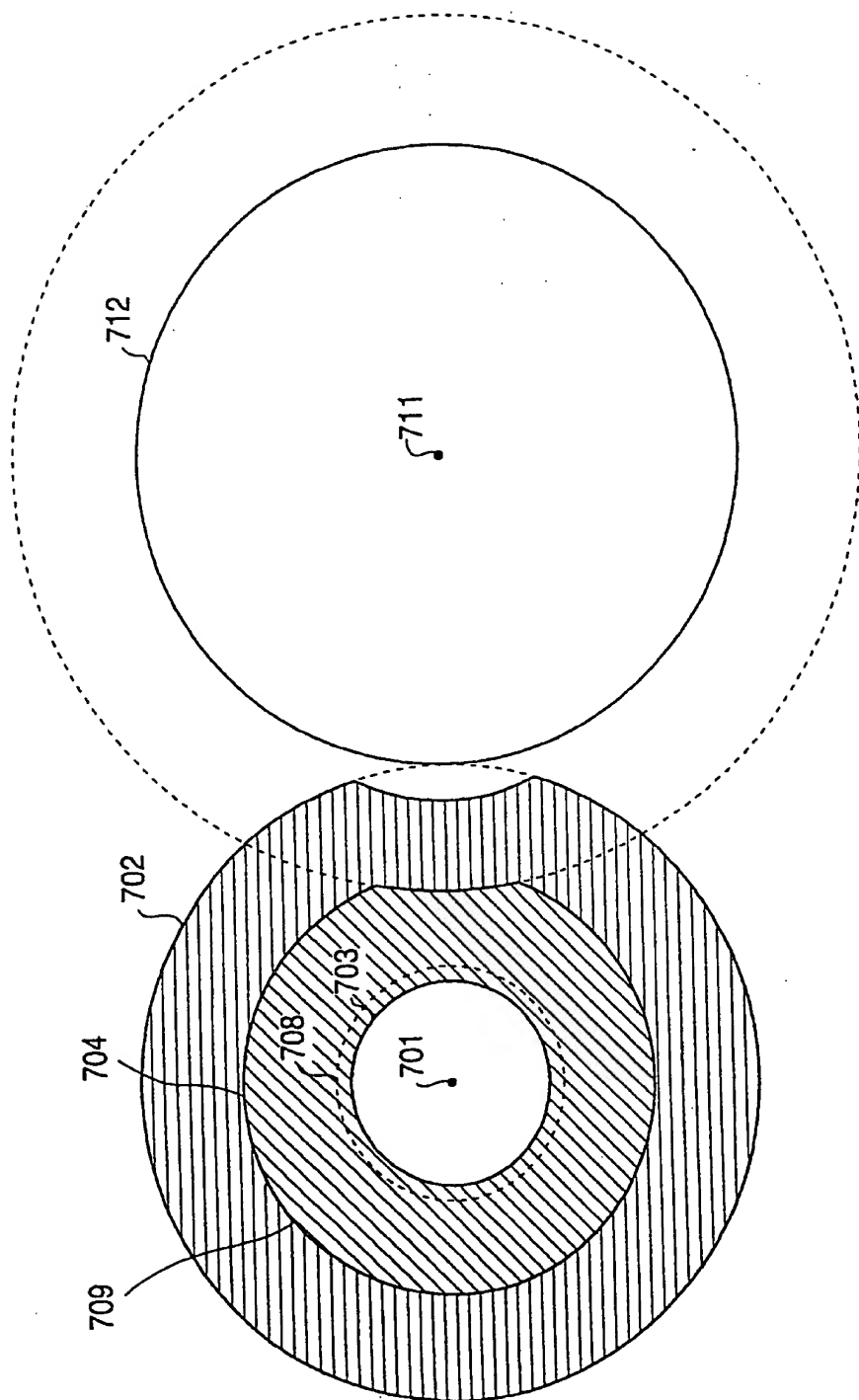


FIG. 91

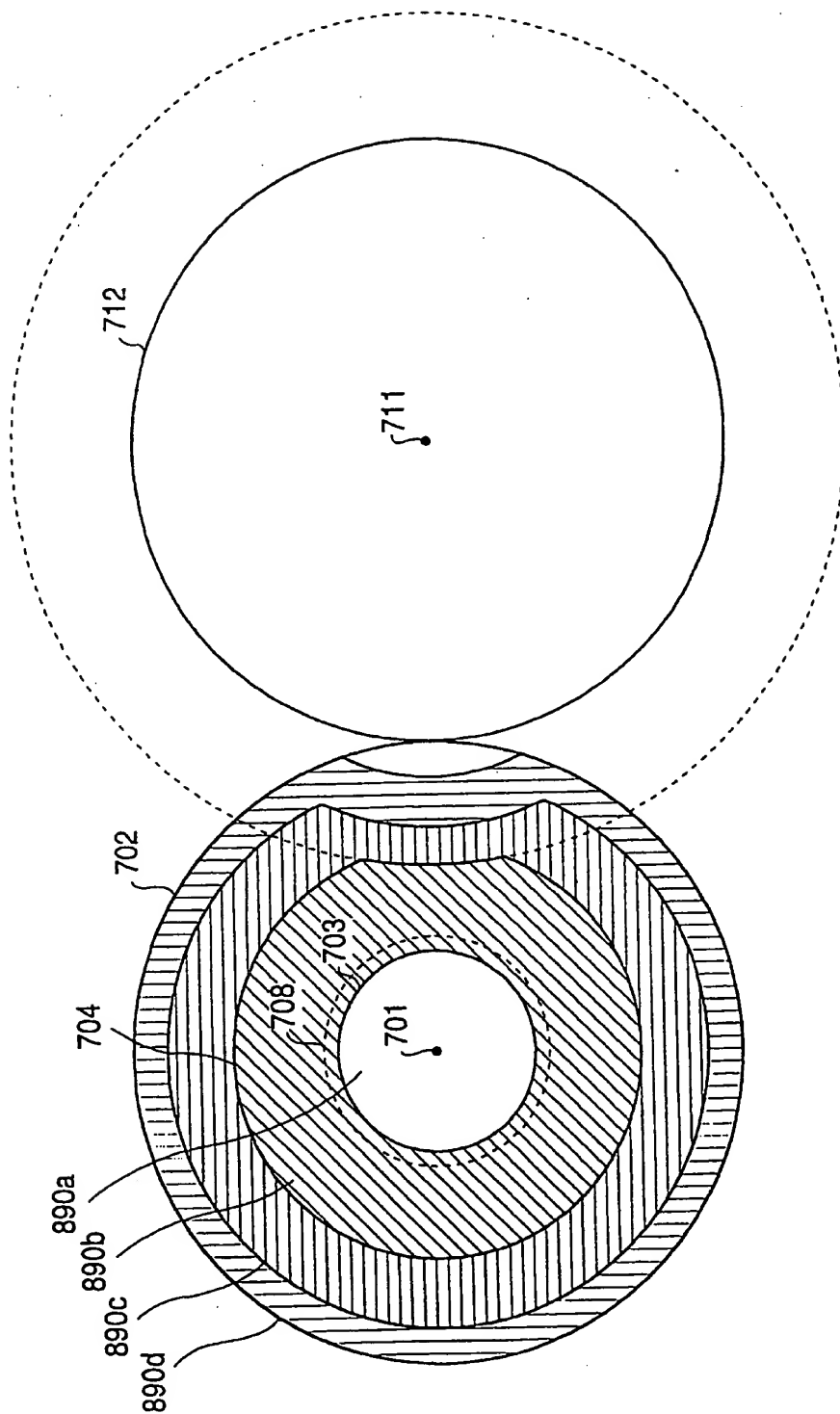


FIG. 92

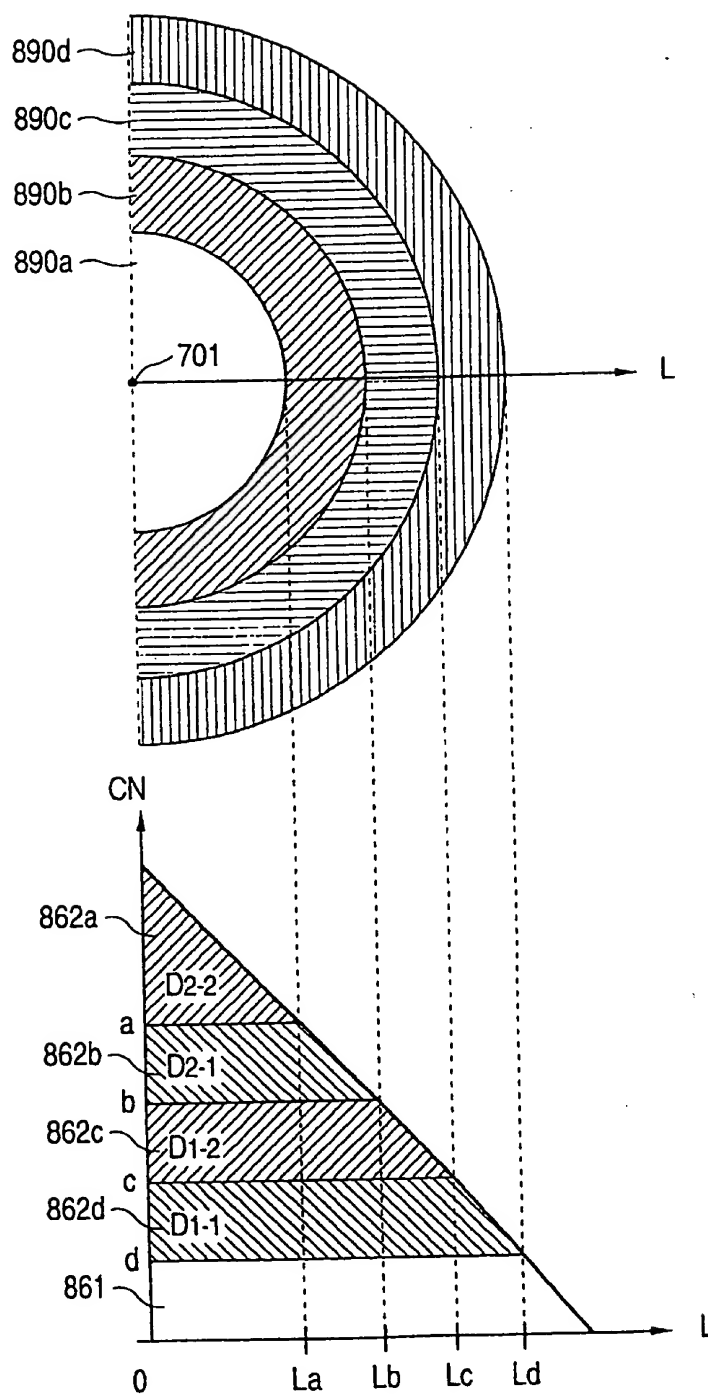


FIG. 93

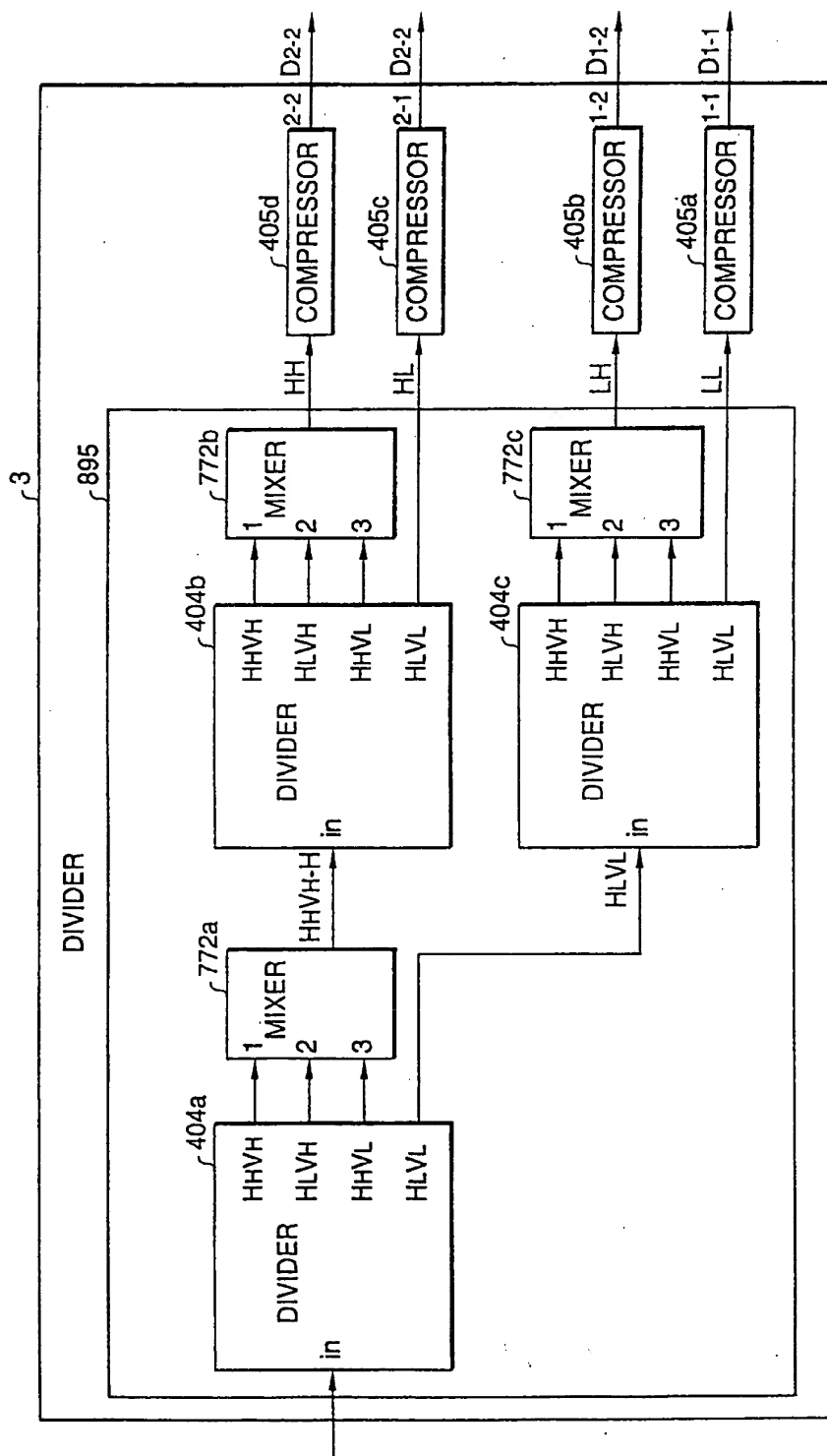


FIG. 95

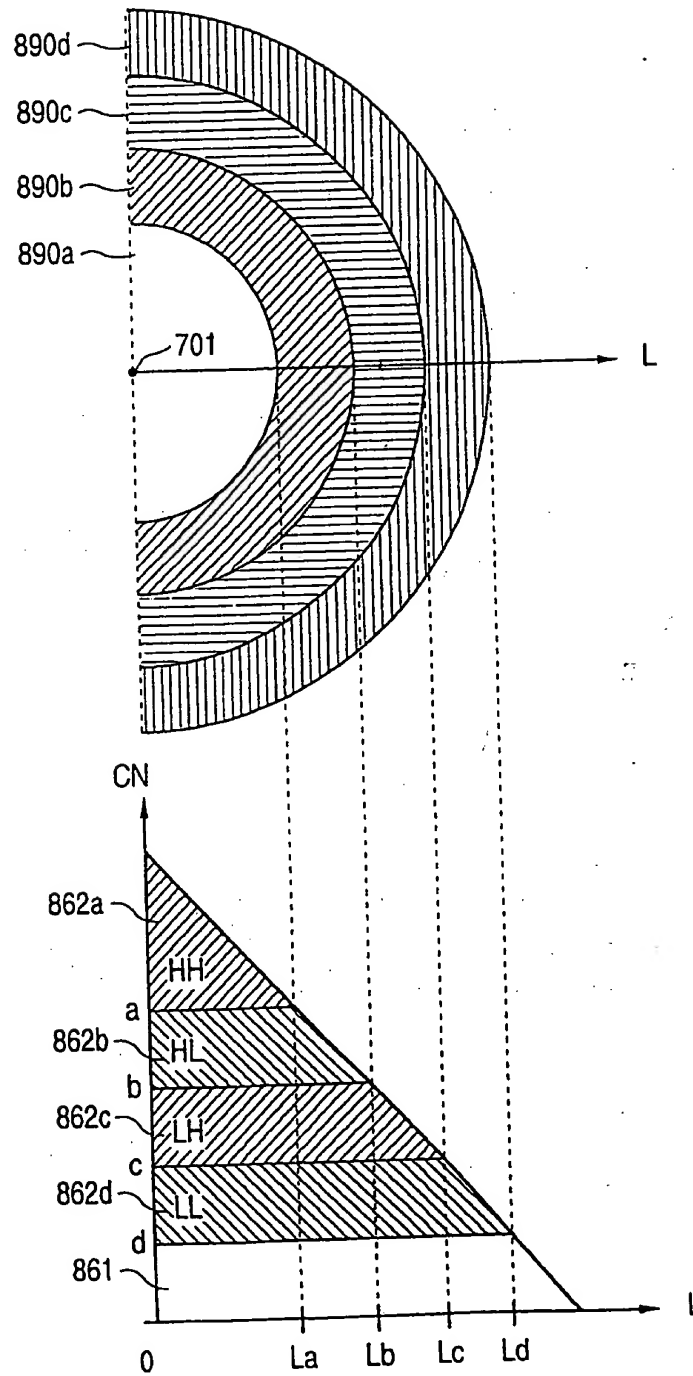


FIG. 96

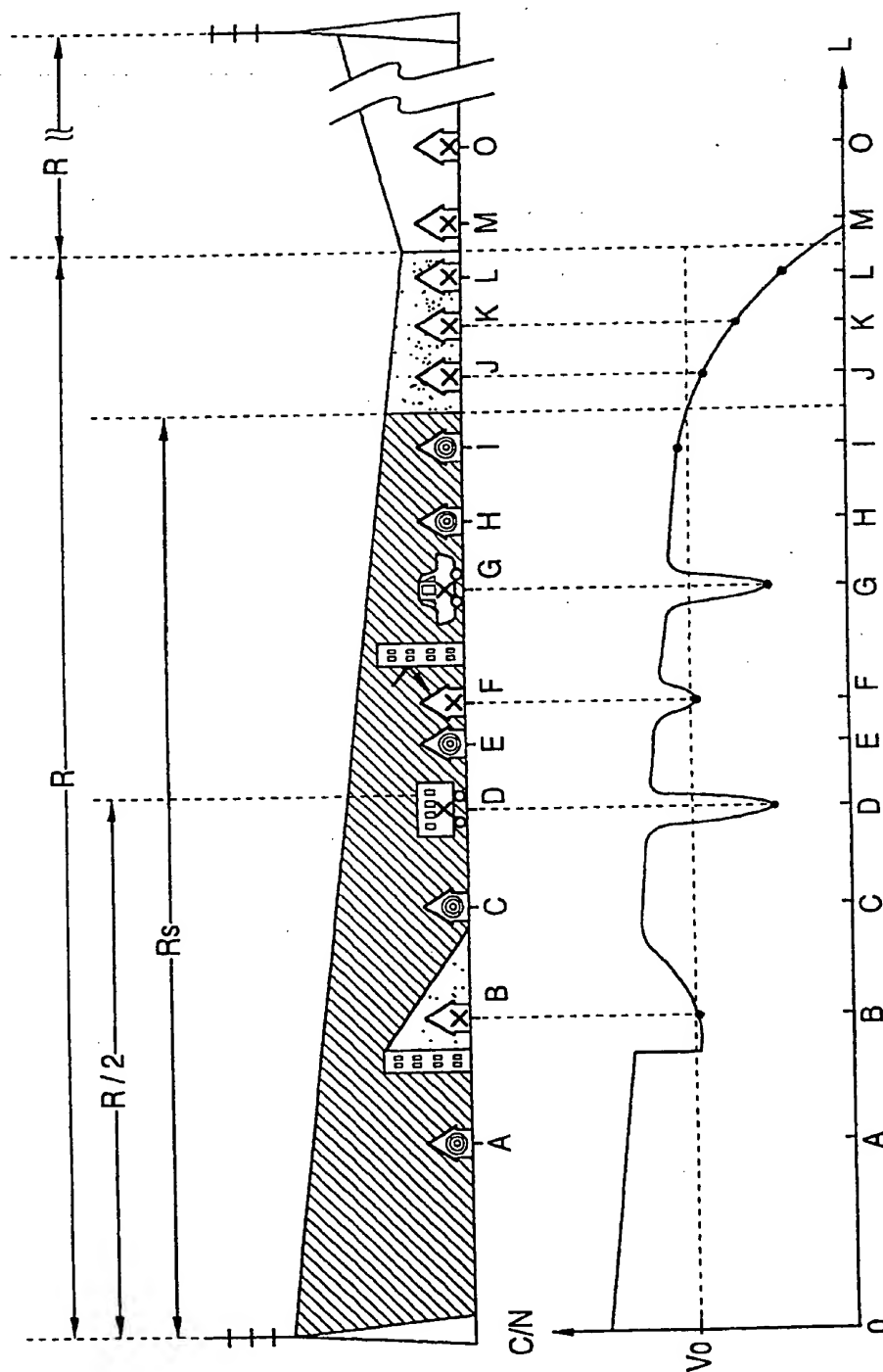


FIG. 97

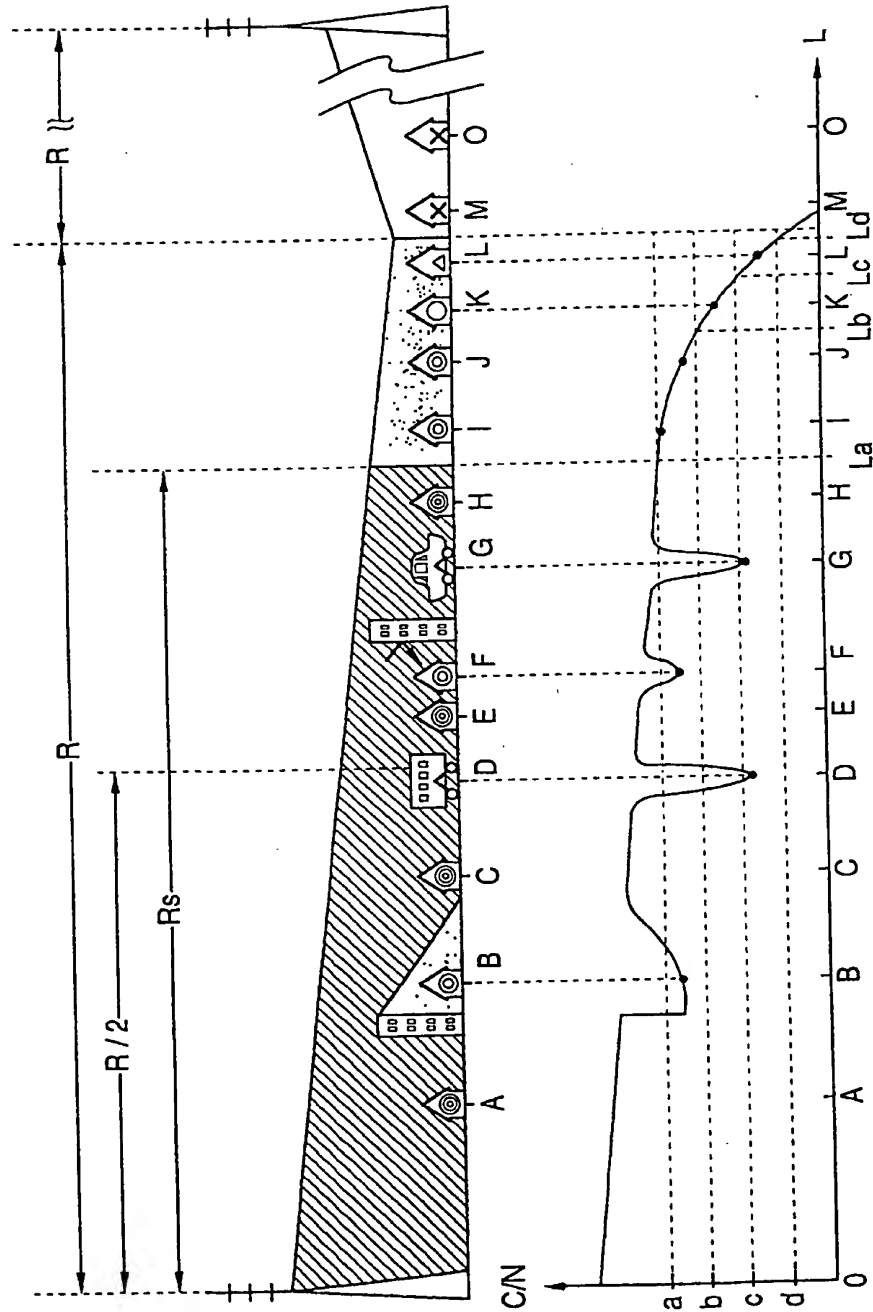


FIG. 98

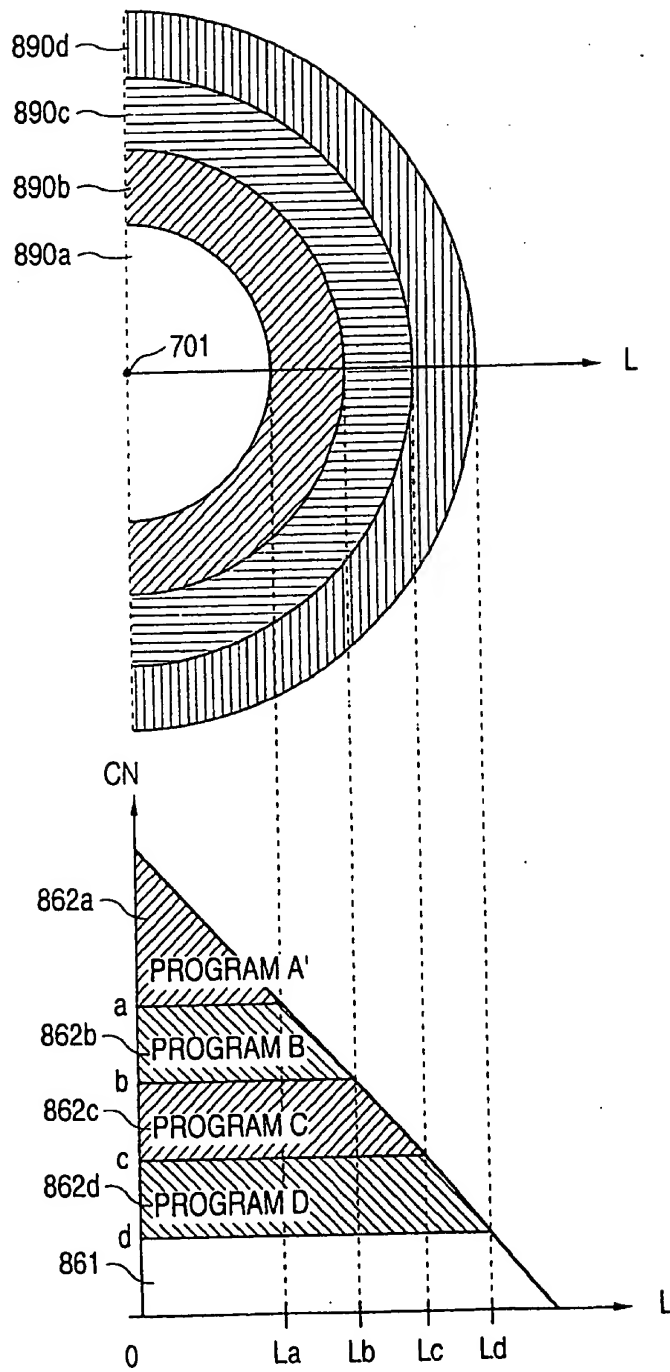


FIG. 99

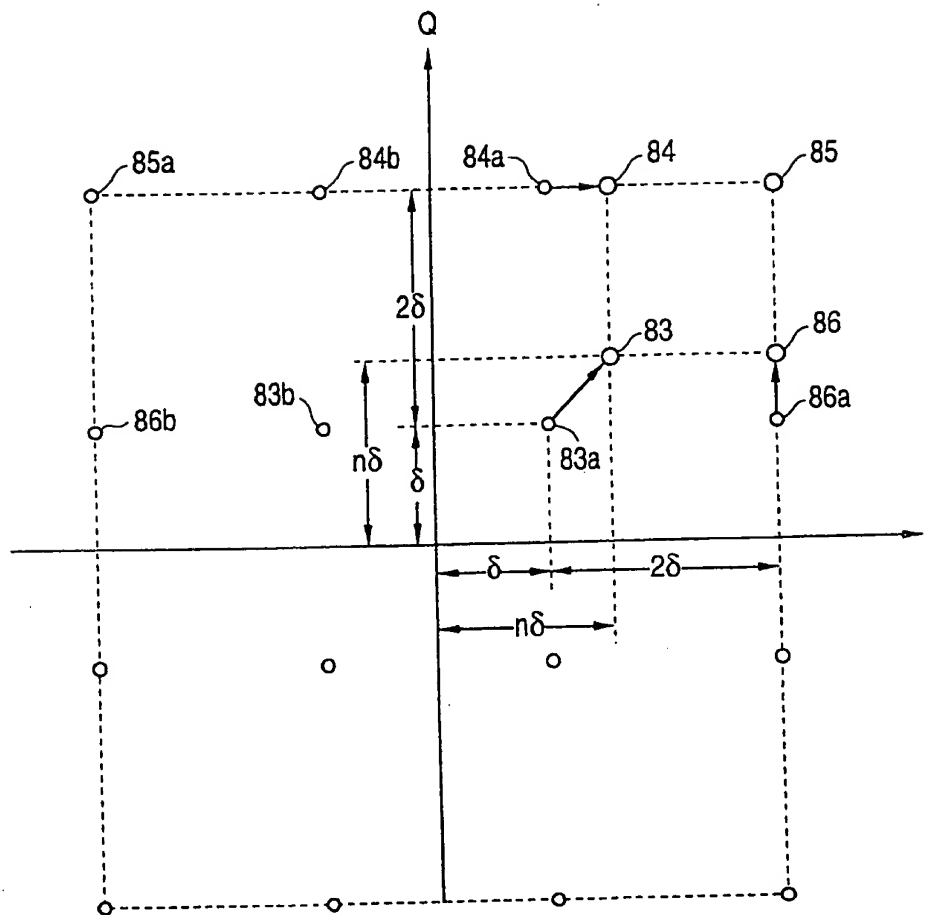


FIG. 100

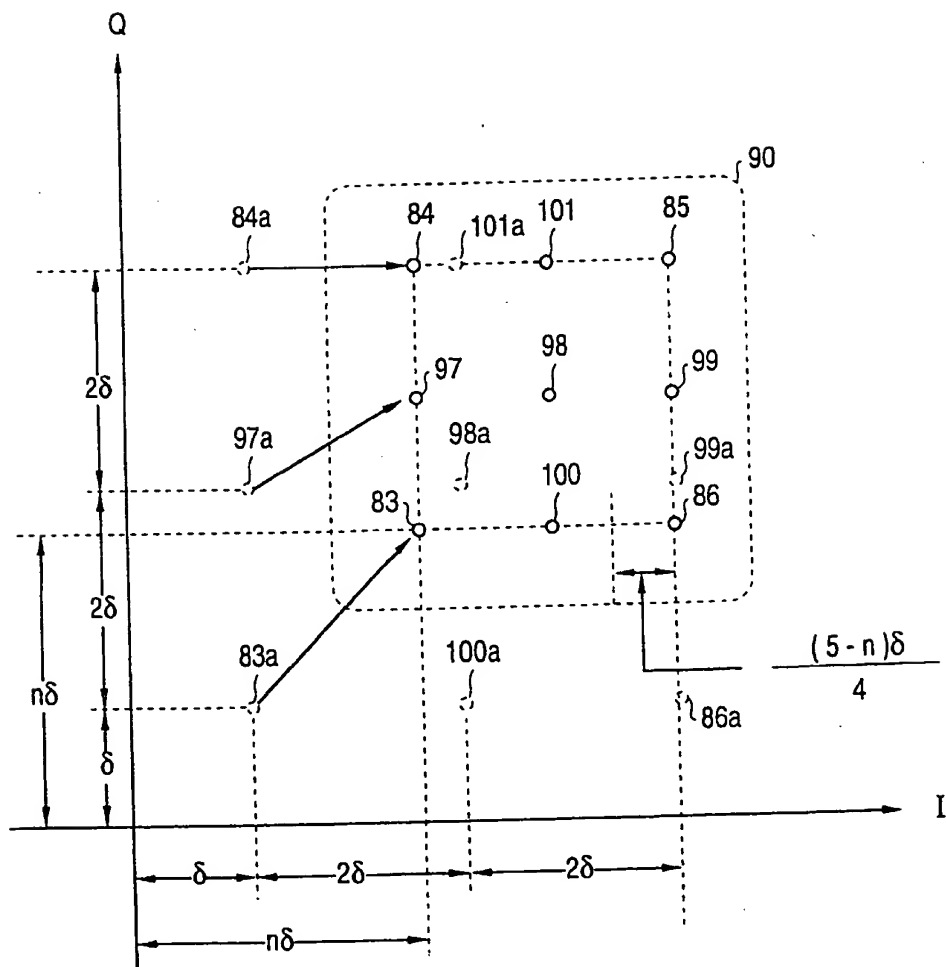


FIG. 101

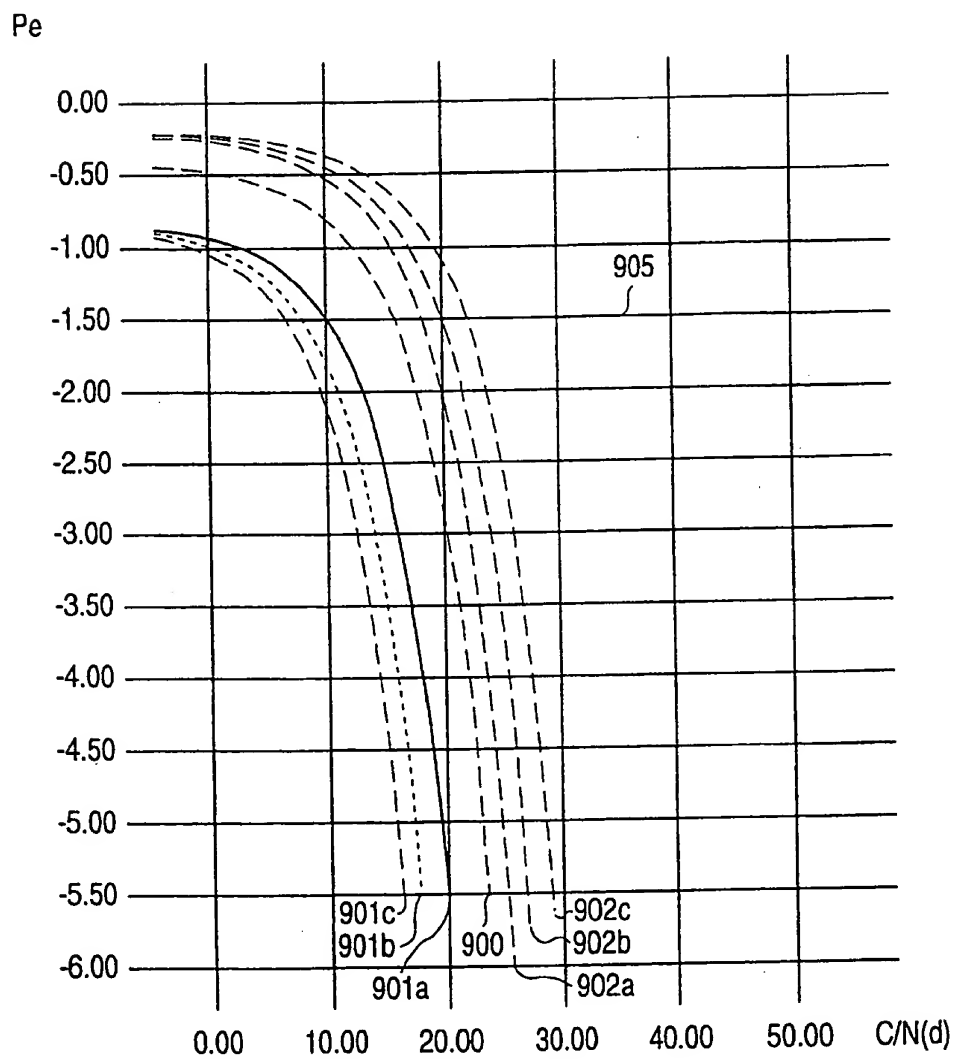


FIG. 102

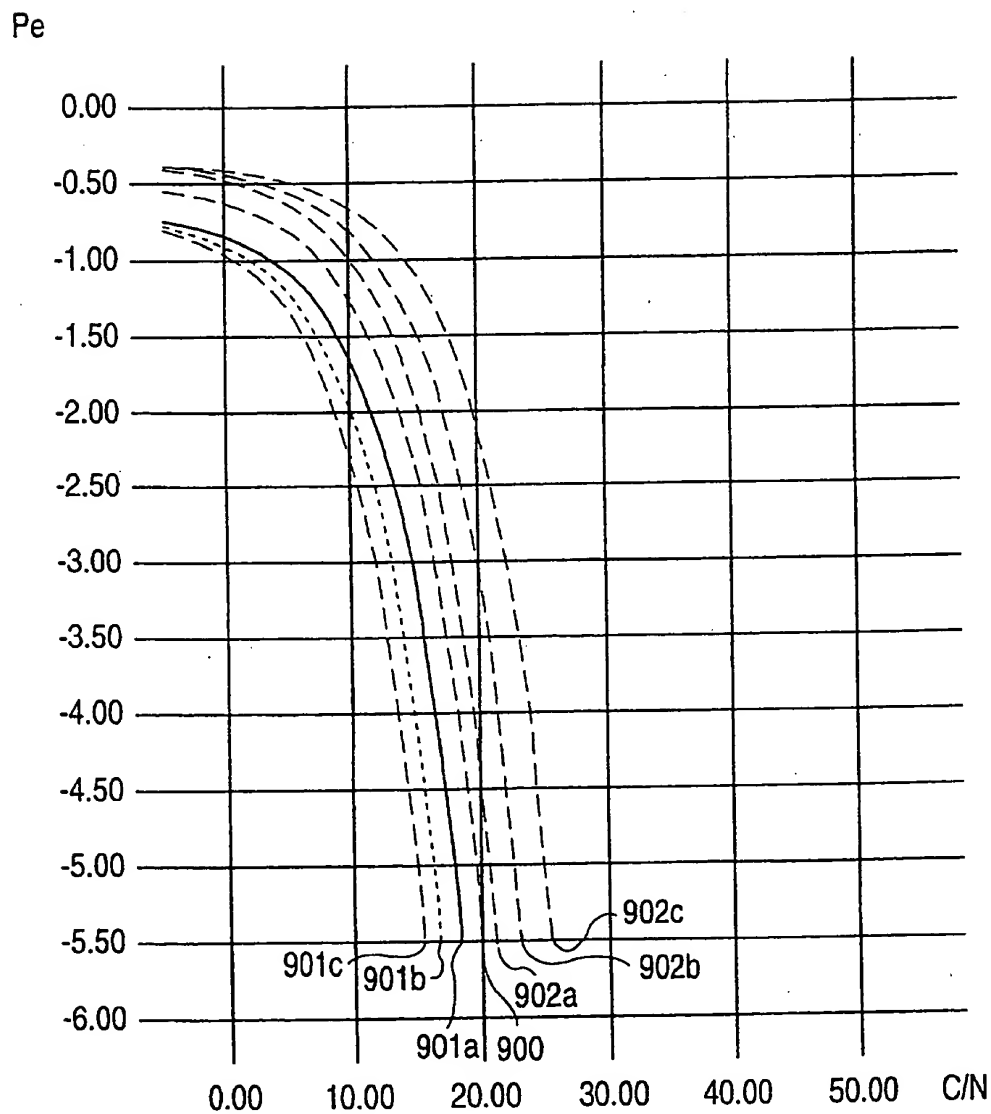


FIG. 103

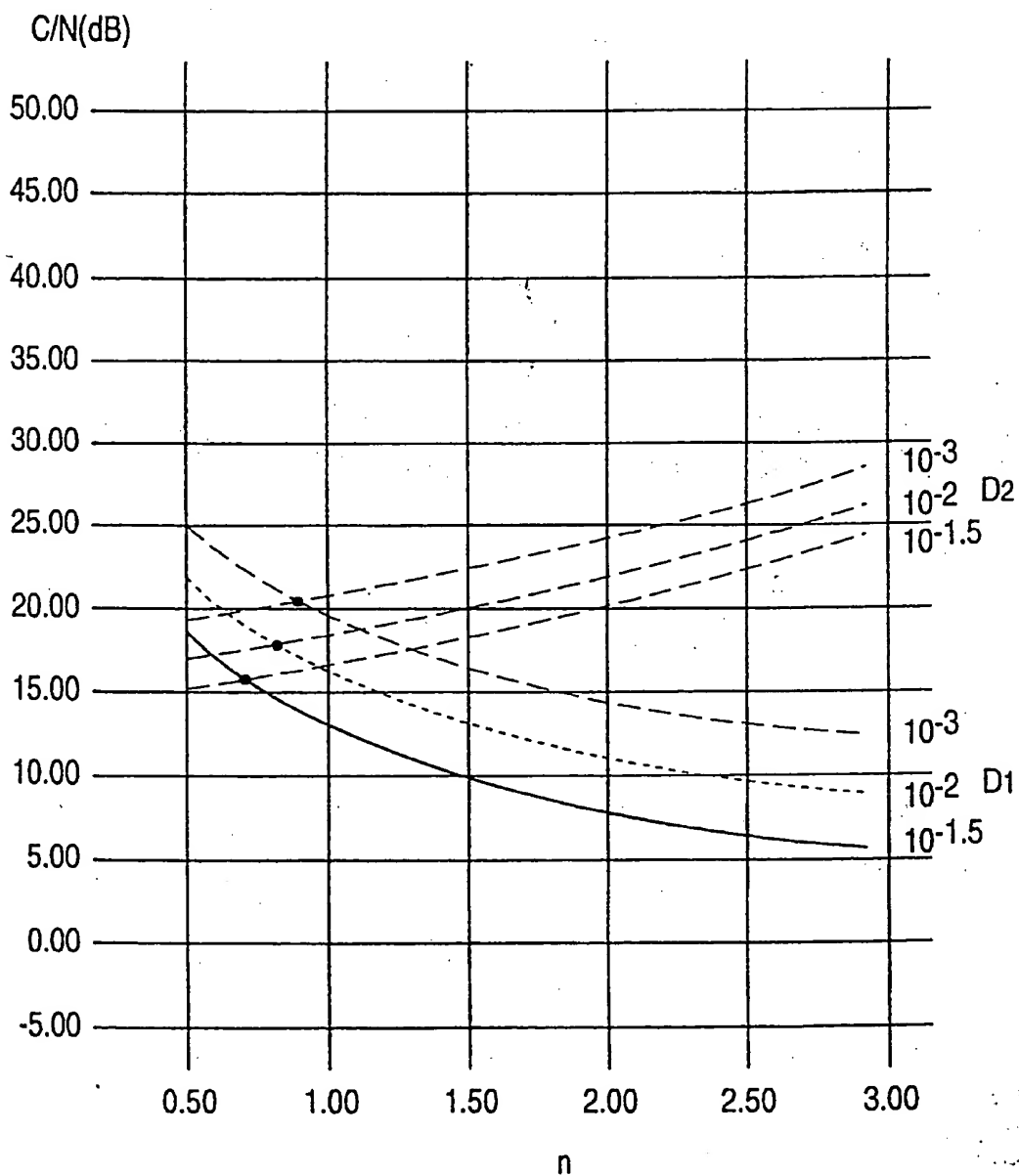


FIG. 104

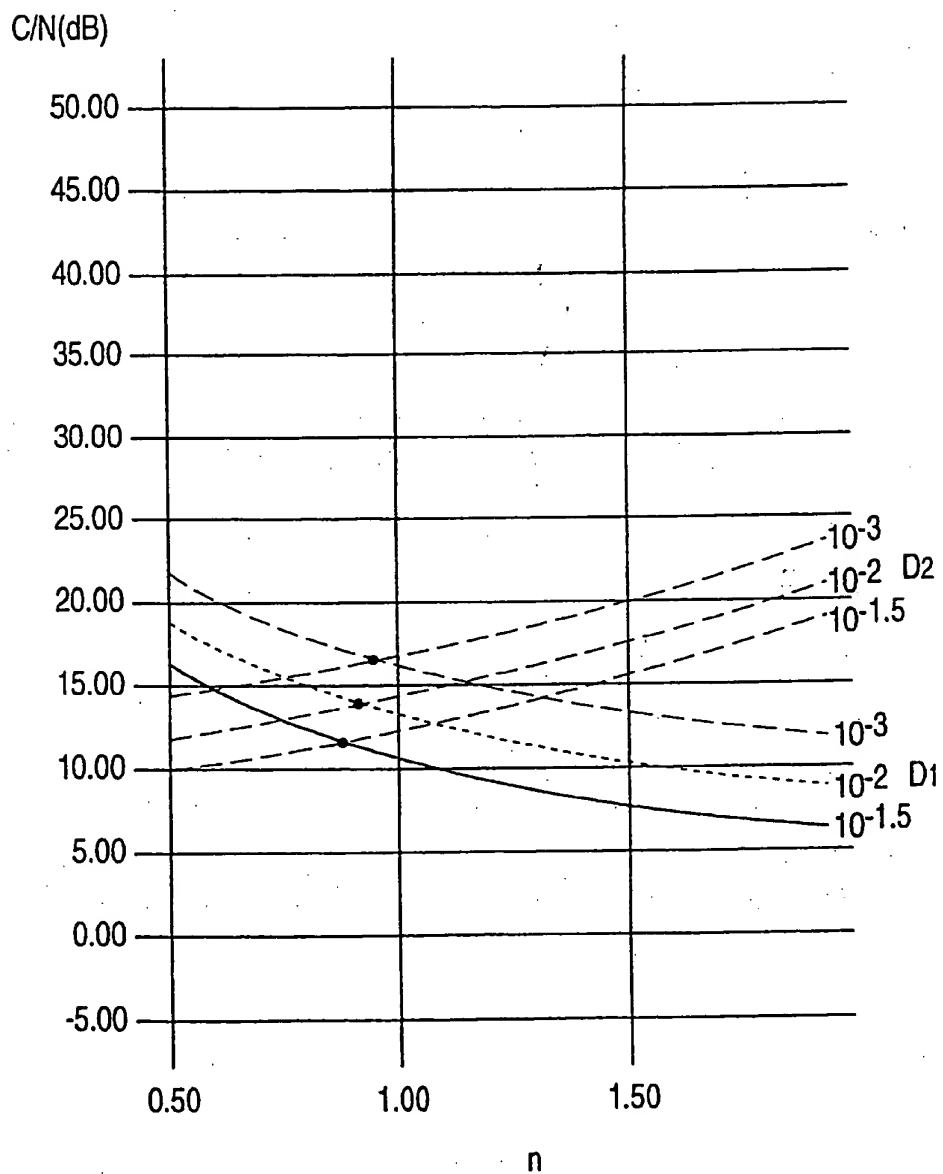


FIG. 105

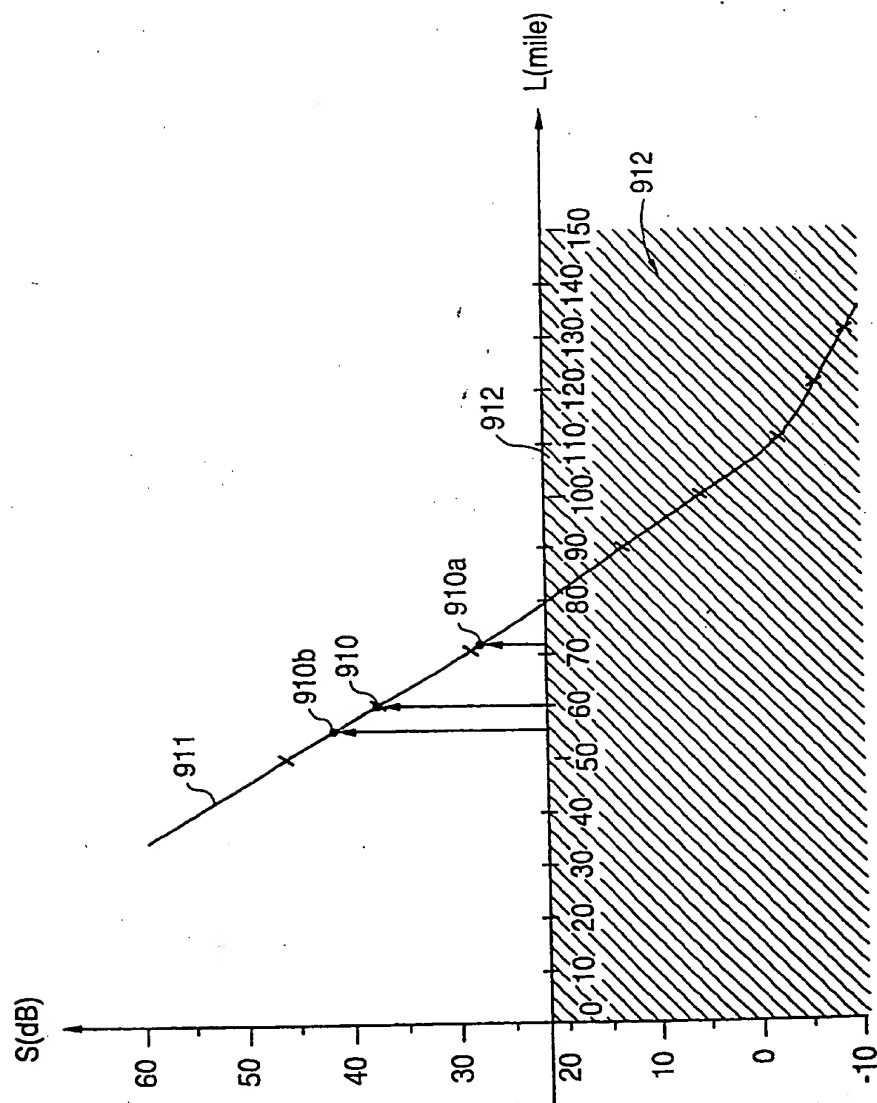


FIG. 106

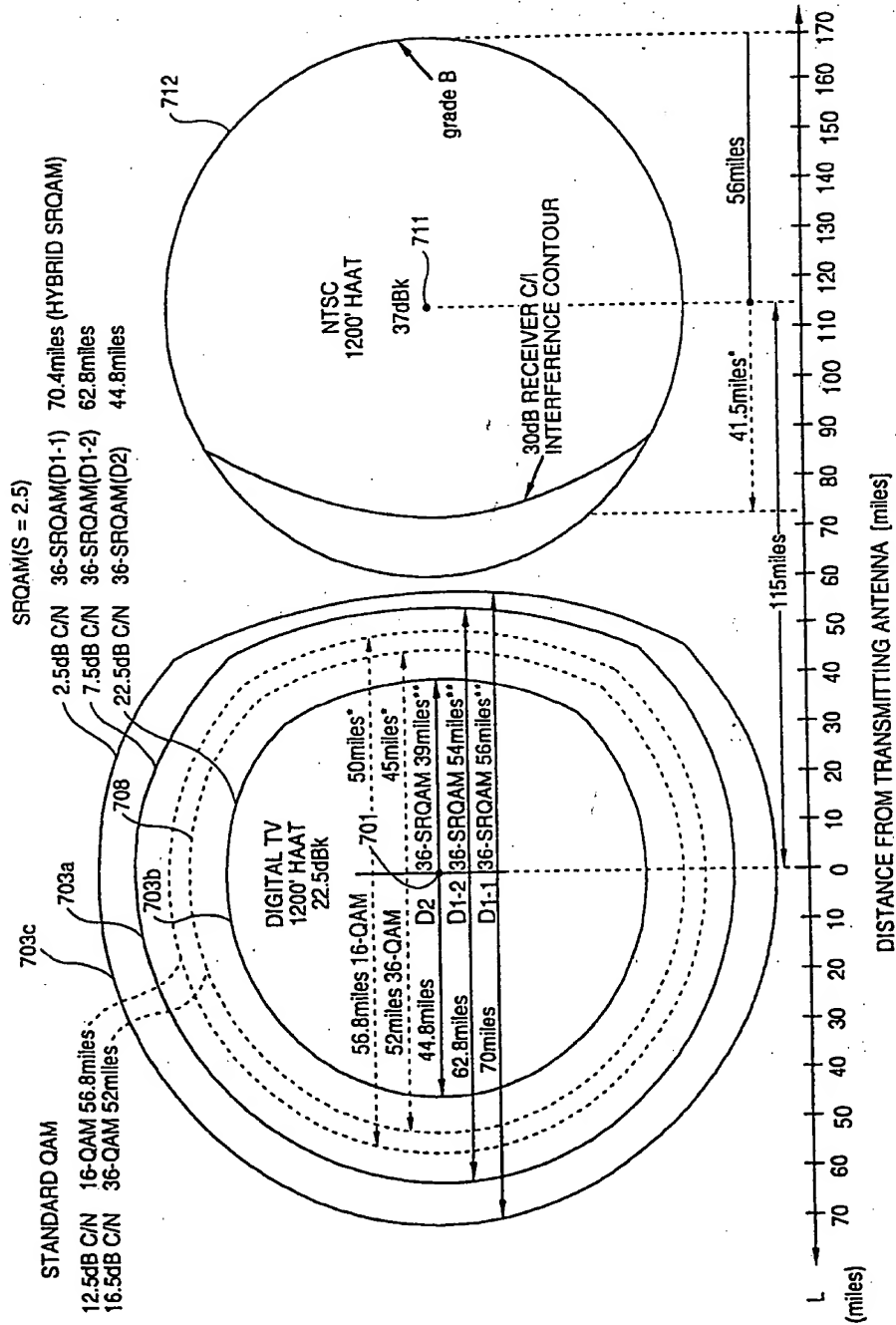


FIG. 107

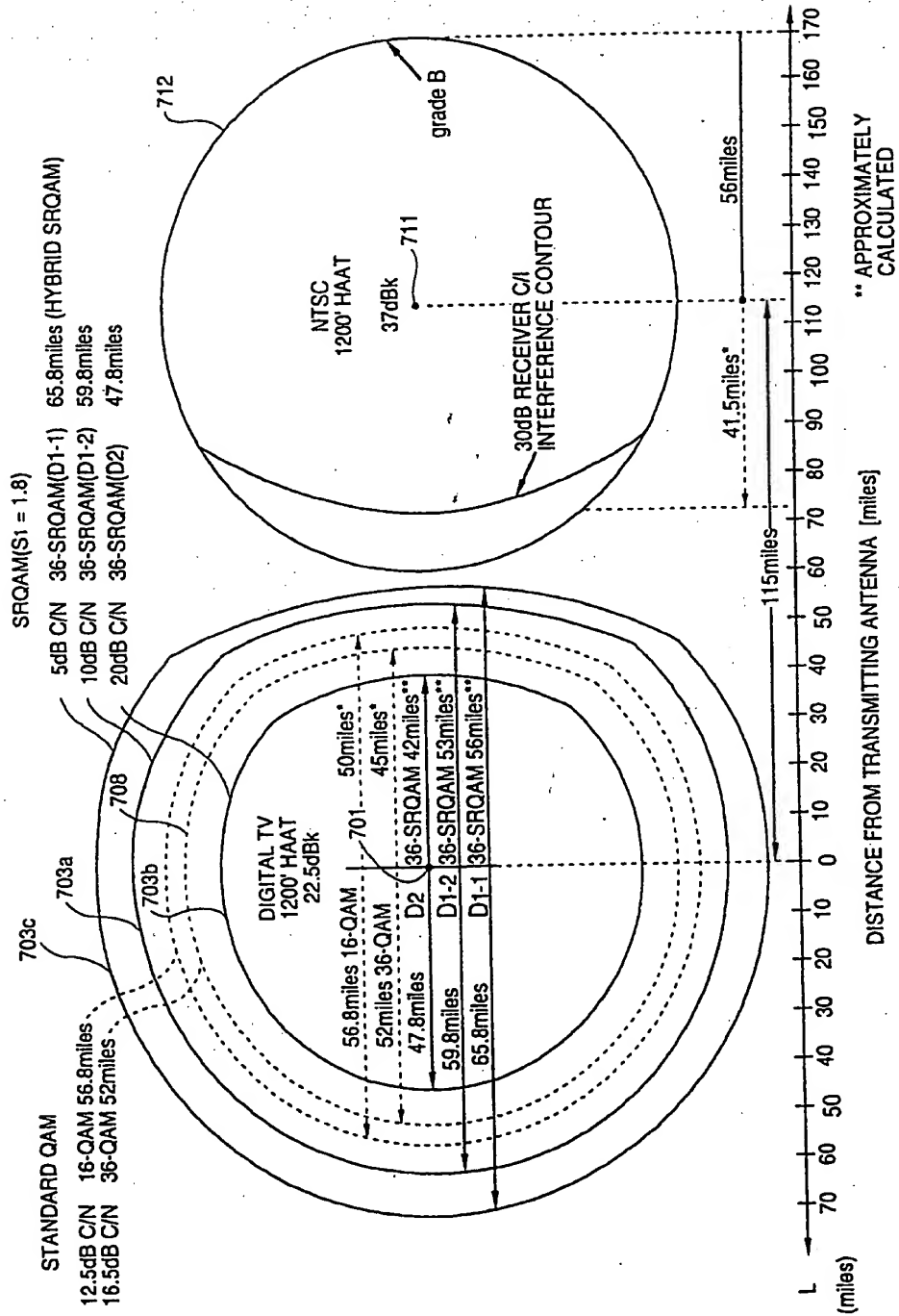


FIG. 108(a)

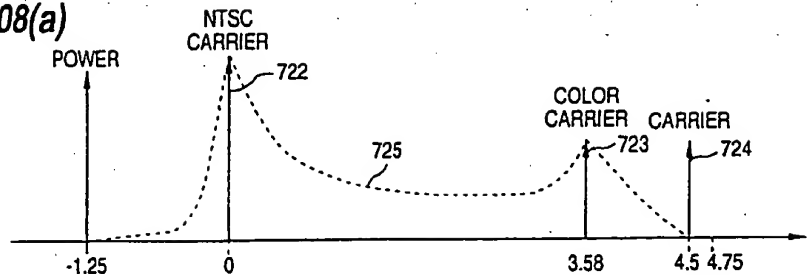


FIG. 108(b)

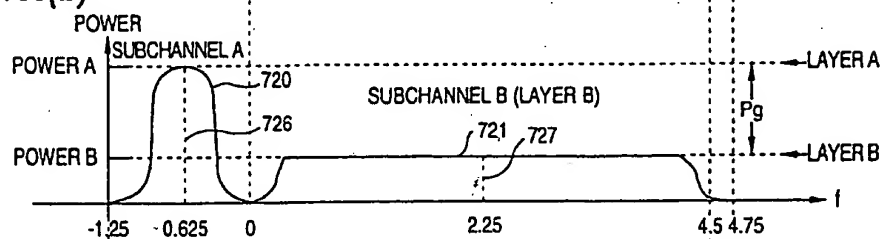


FIG. 108(c)

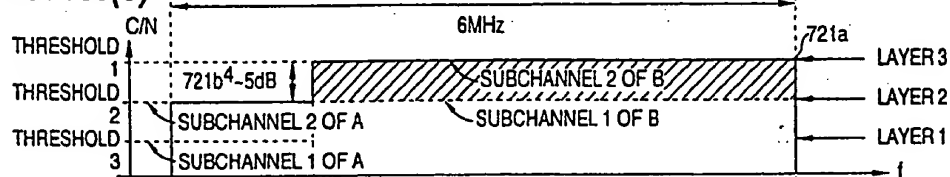


FIG. 108(d)

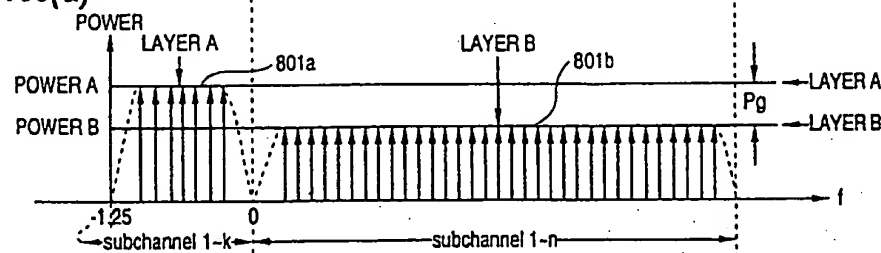


FIG. 108(e)

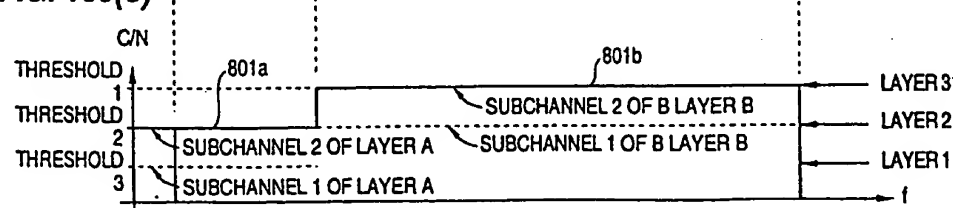


FIG. 109

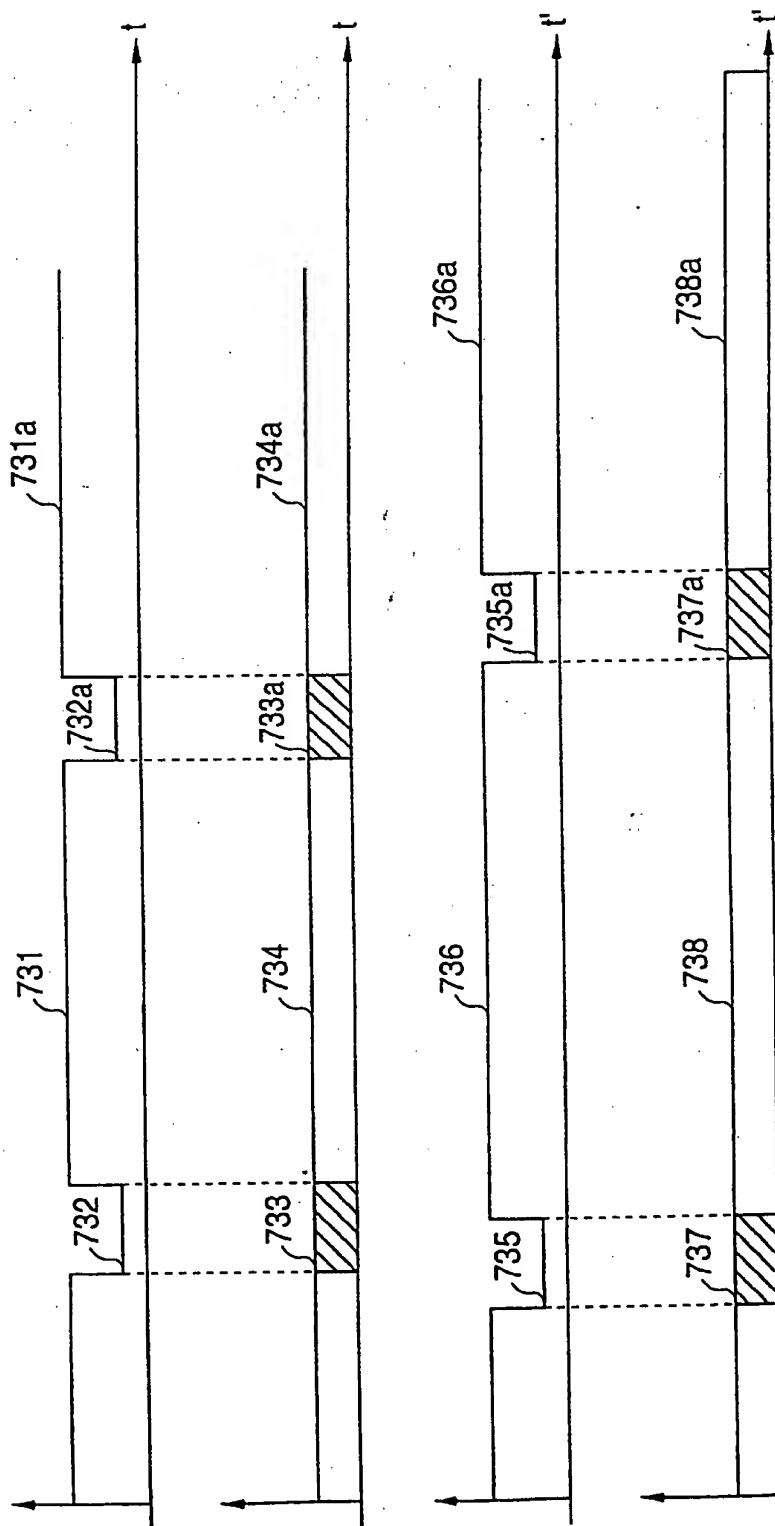


FIG. 110

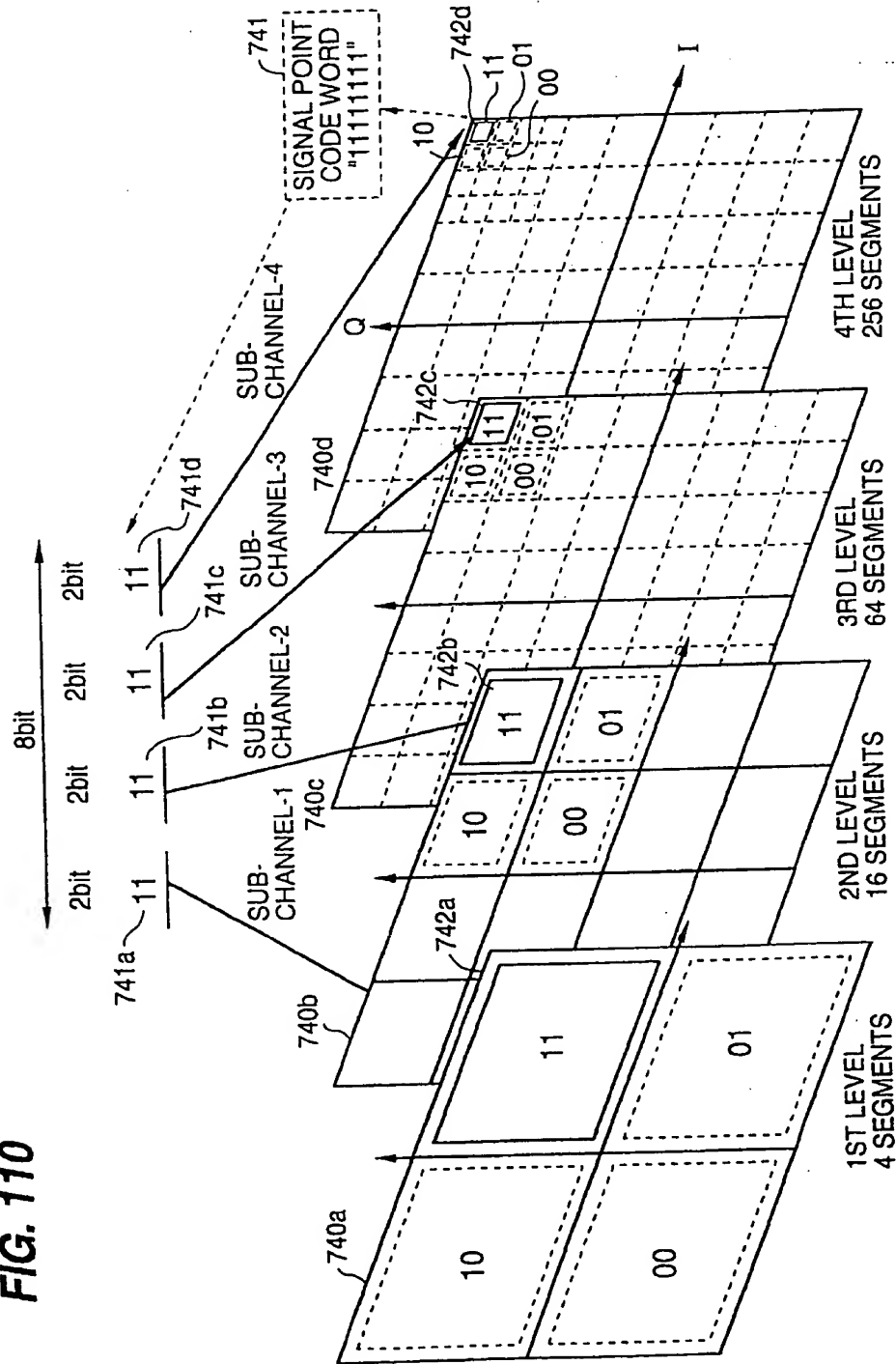
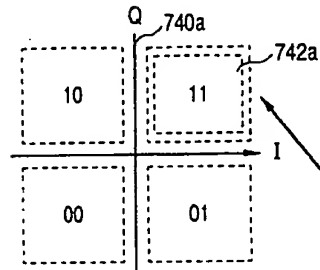


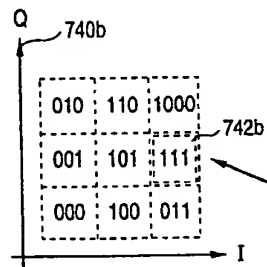
FIG. 111

SUBCHANNEL-1 (SRQAM:D1 = 2bit)



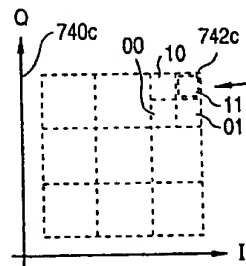
CODE WORD-1

SUBCHANNEL-2 (36-SRQAM:D2 = 3bit + 1/8bit)



CODE WORD-2

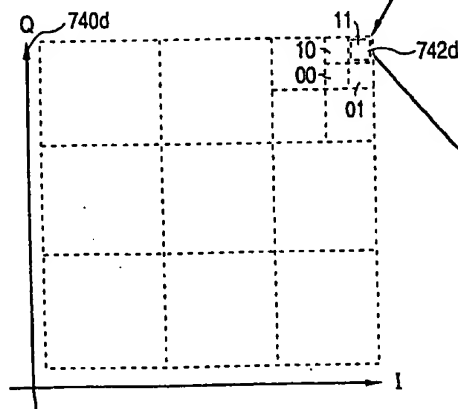
SUBCHANNEL-3 (144-SRQAM:D3 = 2bit)



CODE WORD-3

CODE WORD-4

SUBCHANNEL-4 (576-SRQAM:D4 = 2bit)



SIGNAL POINT
CODE WORD
11 11 11 11

741a ~ 11 2bit

741b 111 3+1/8bit 9+1/8bit

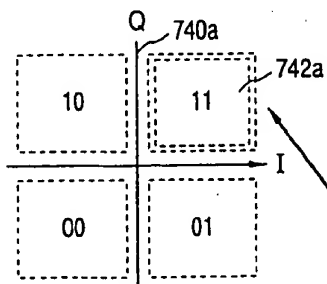
741c 11 2bit

741d 11 2bit

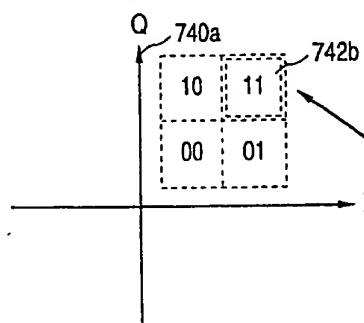
741

FIG. 112

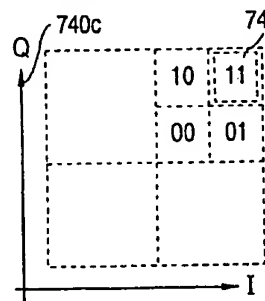
SUBCHANNEL-1 (SRQAM:D1 = 2bit)



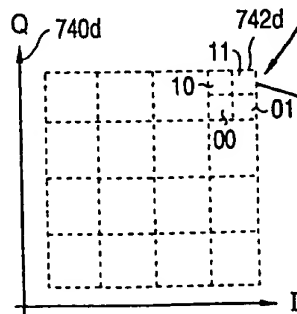
SUBCHANNEL-2 (16-SRQAM:D2 = 2bit)



SUBCHANNEL-3 (64-SRQAM:D3 = 2bit)



SUBCHANNEL-4 (256-SRQAM:D4 = 2bit)



CODE WORD-1

CODE WORD-2

CODE WORD-3

CODE WORD-4

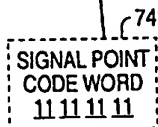
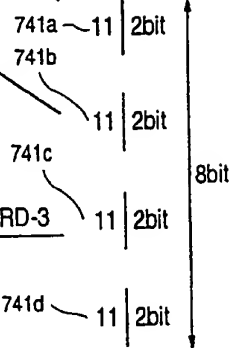


FIG. 113

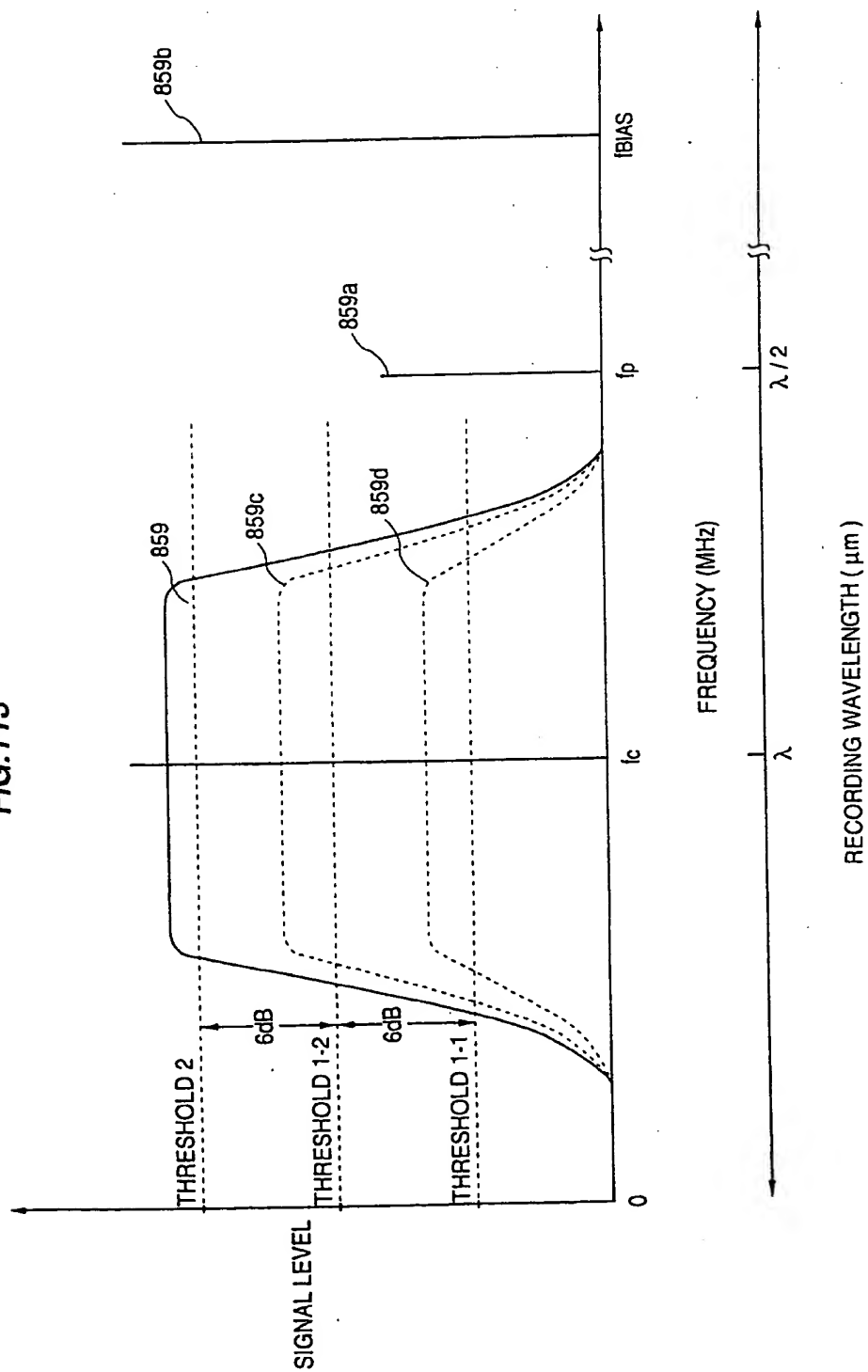


FIG. 114

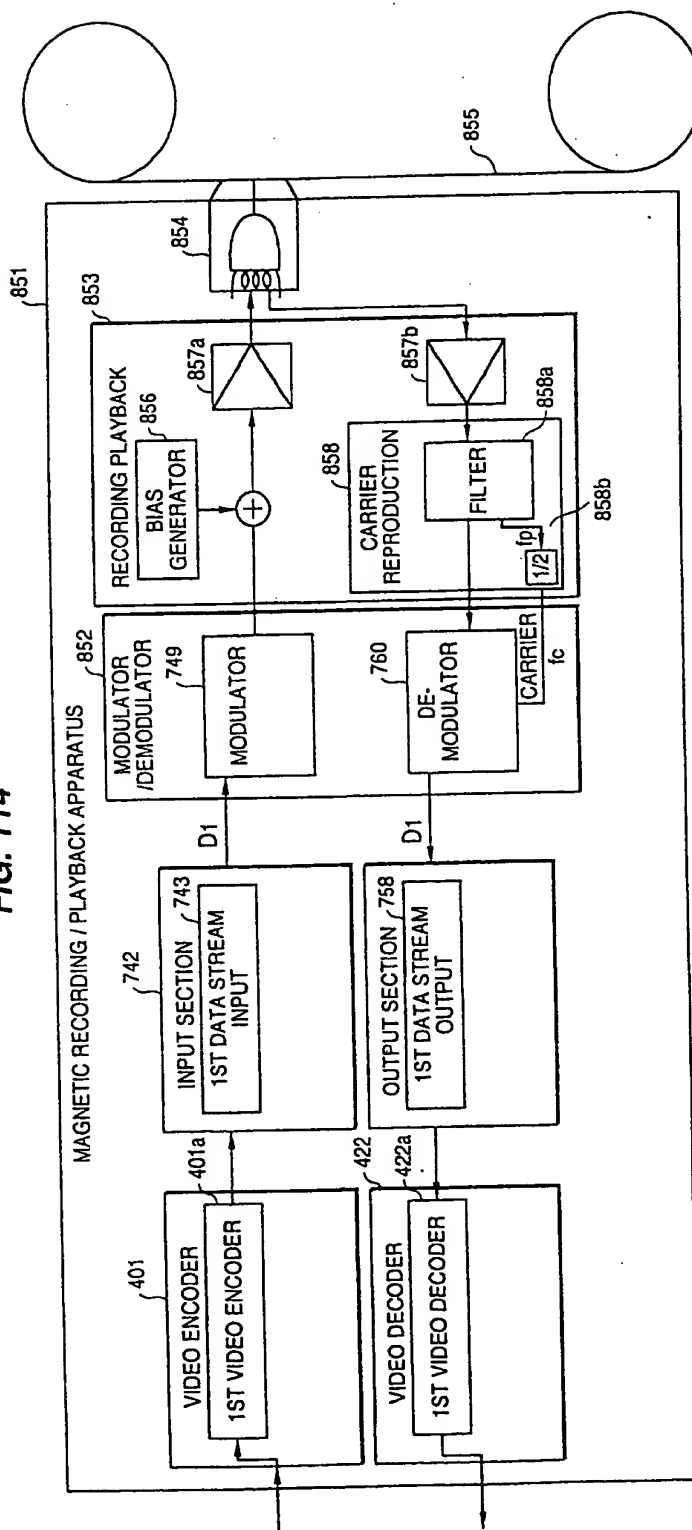


FIG. 115

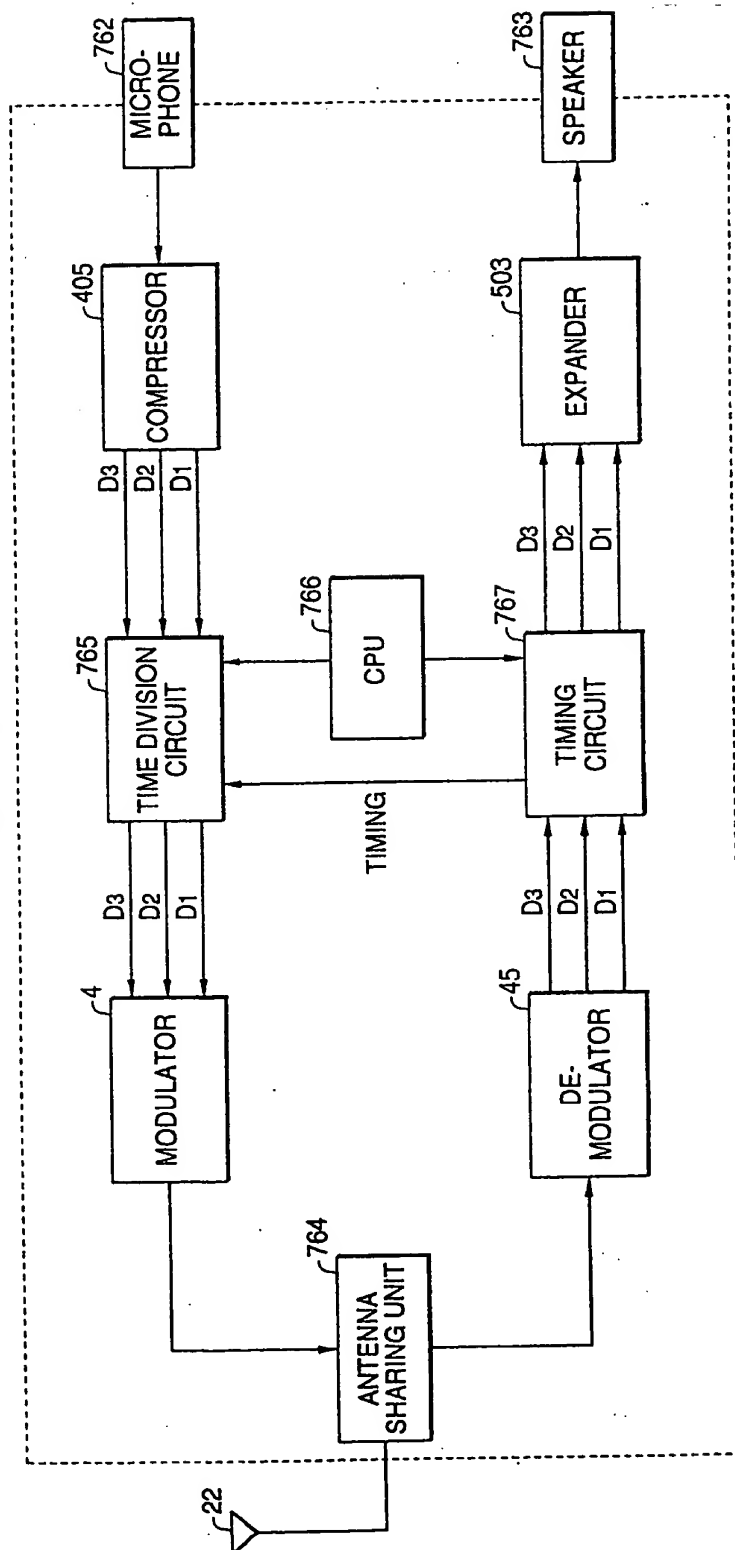


FIG. 116

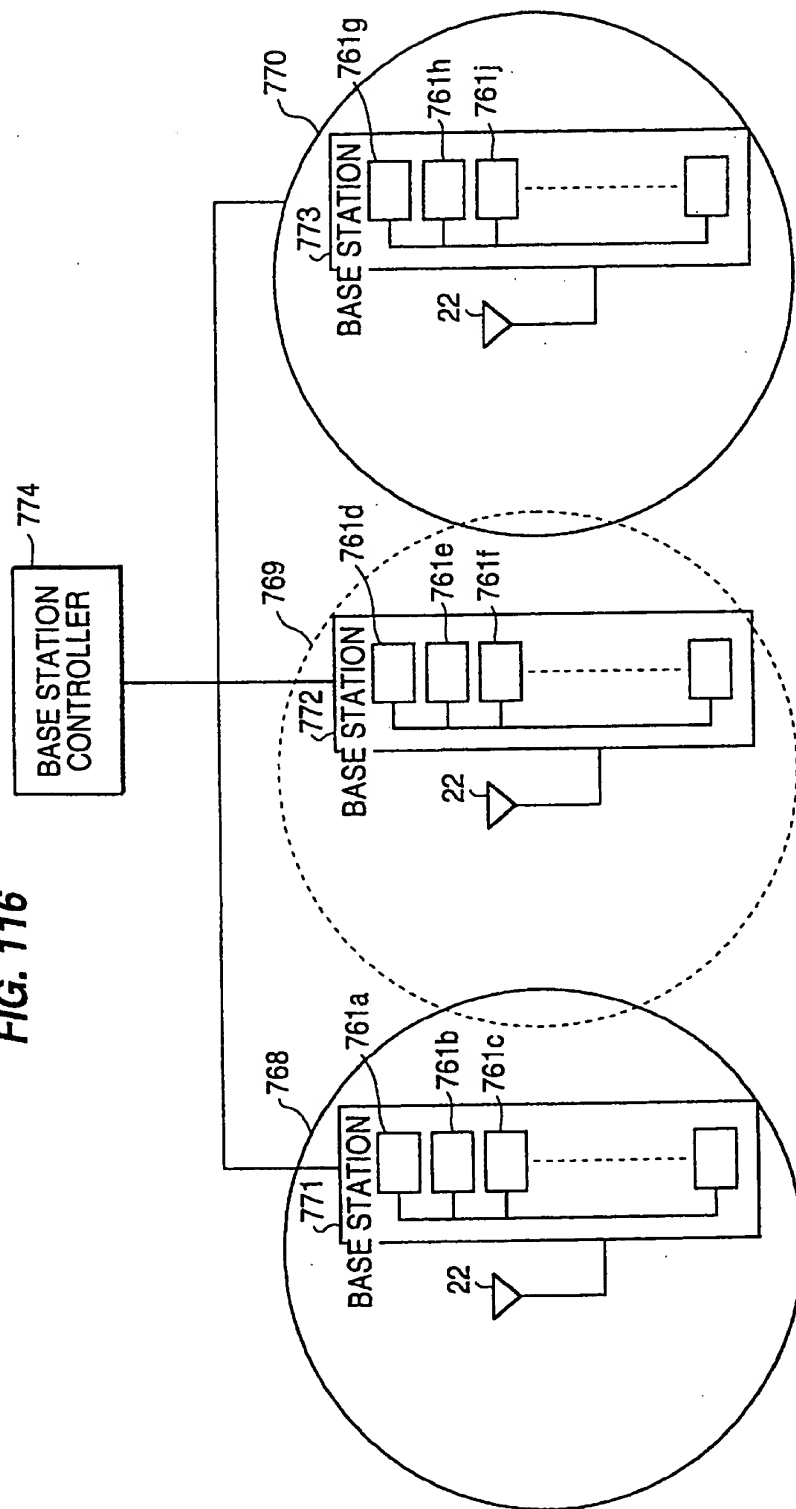


FIG. 117

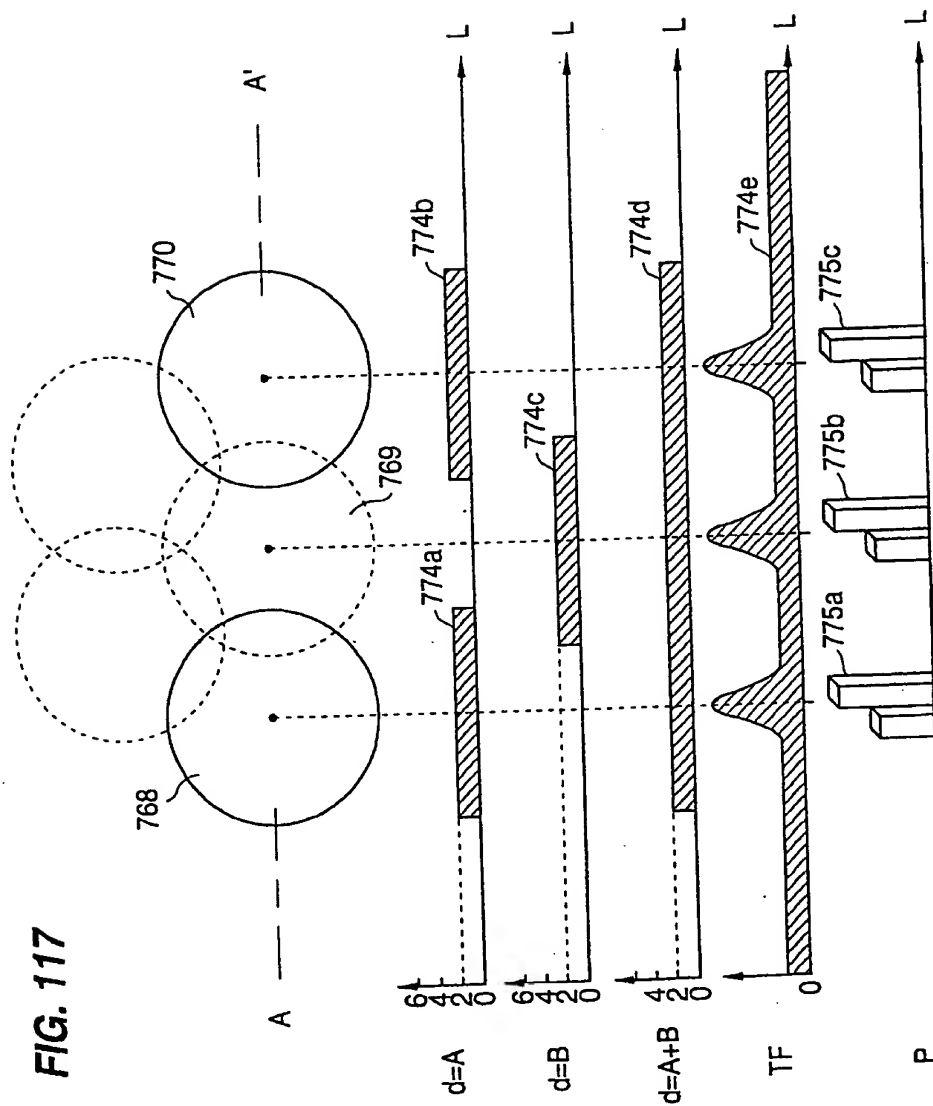


FIG. 118

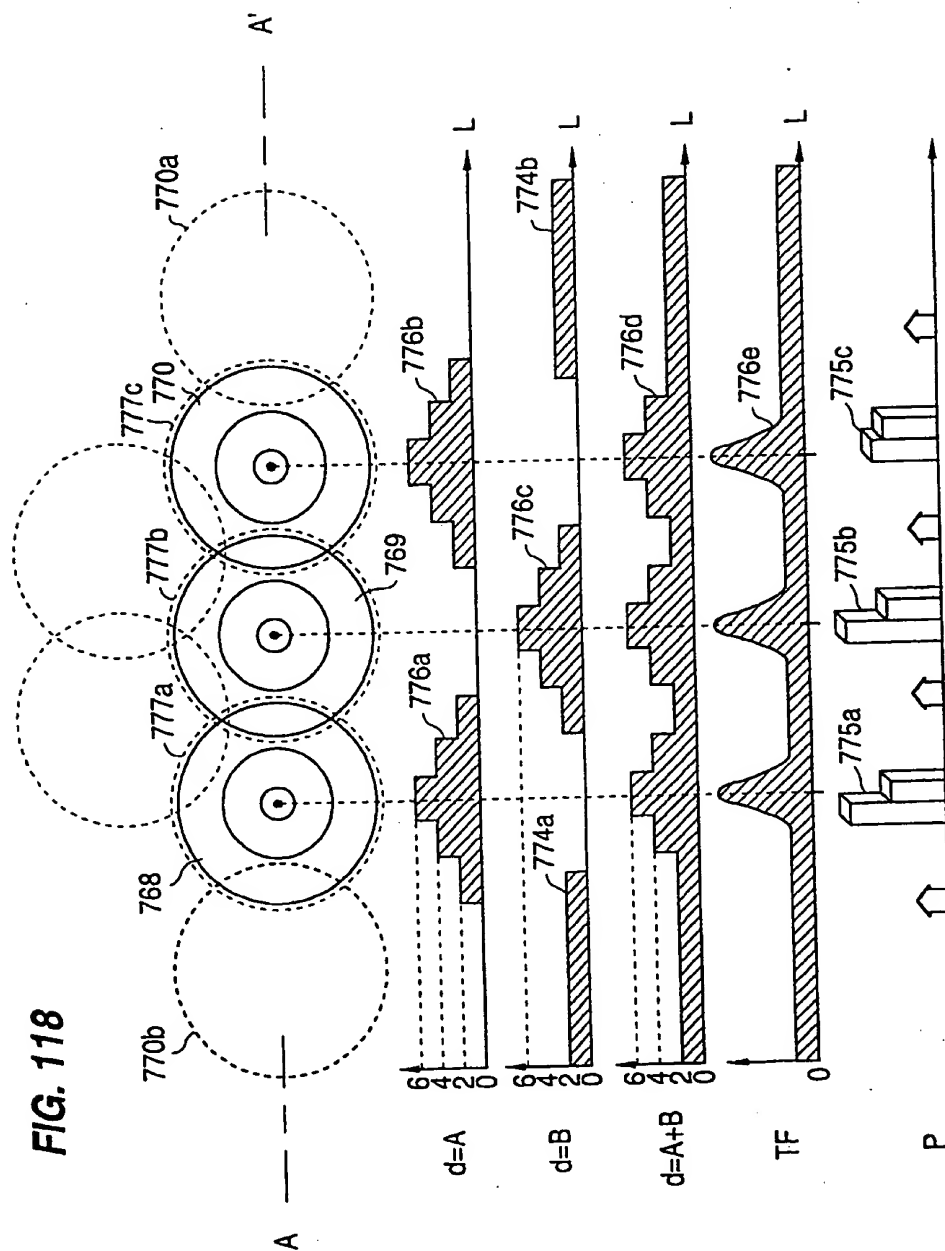


FIG. 119(a)

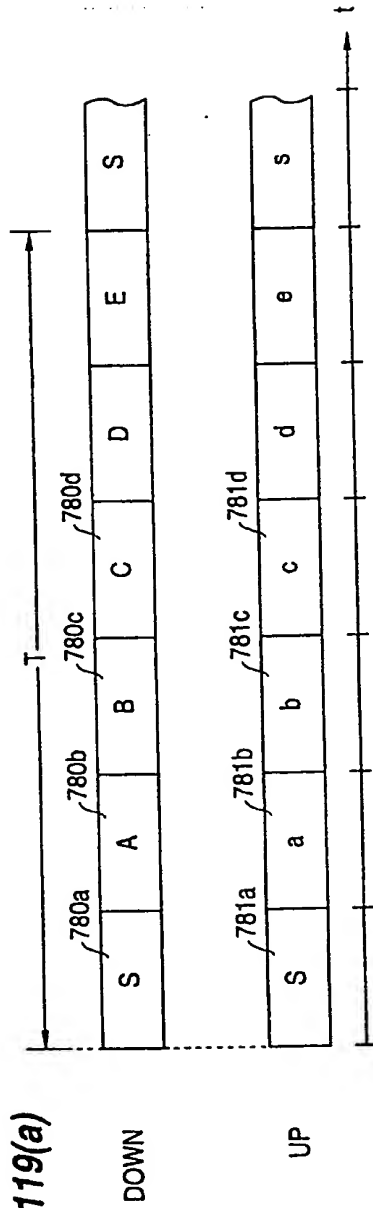


FIG. 119(b)

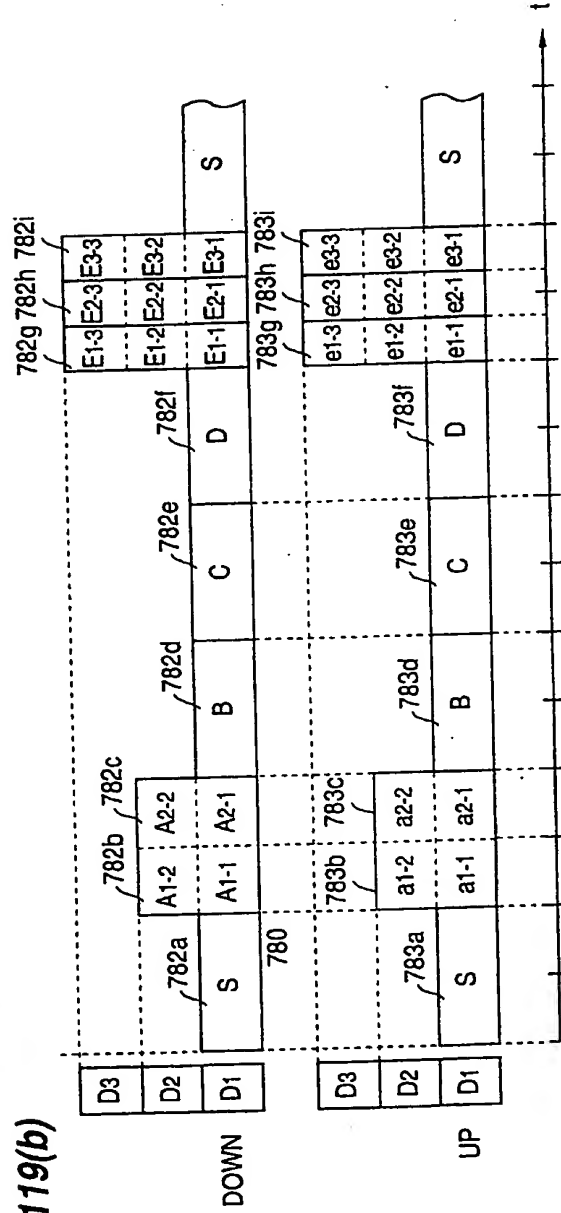


FIG. 120(a)

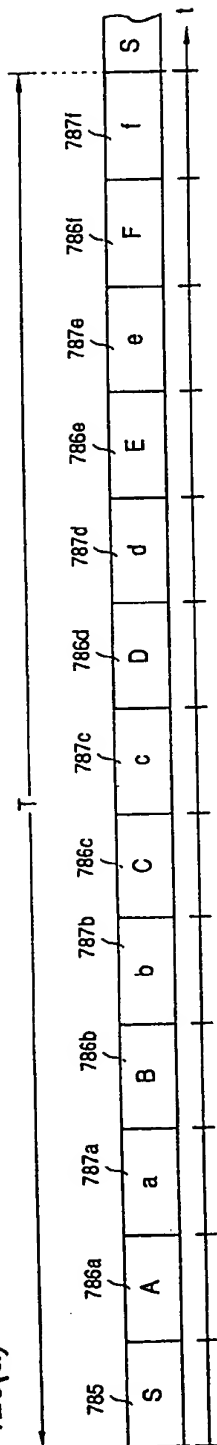


FIG. 120(b)

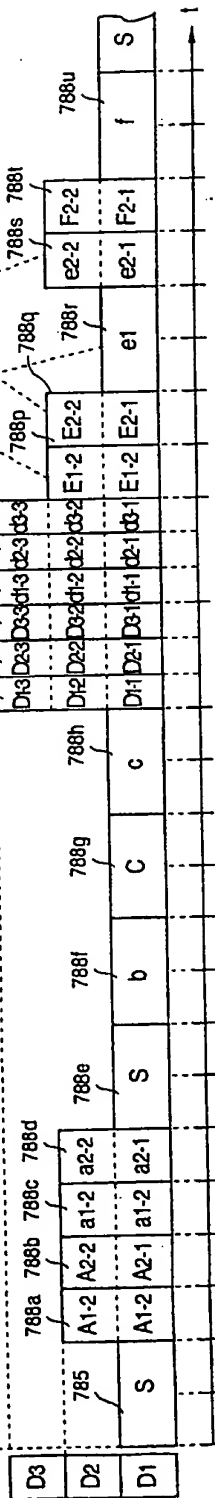


FIG. 121

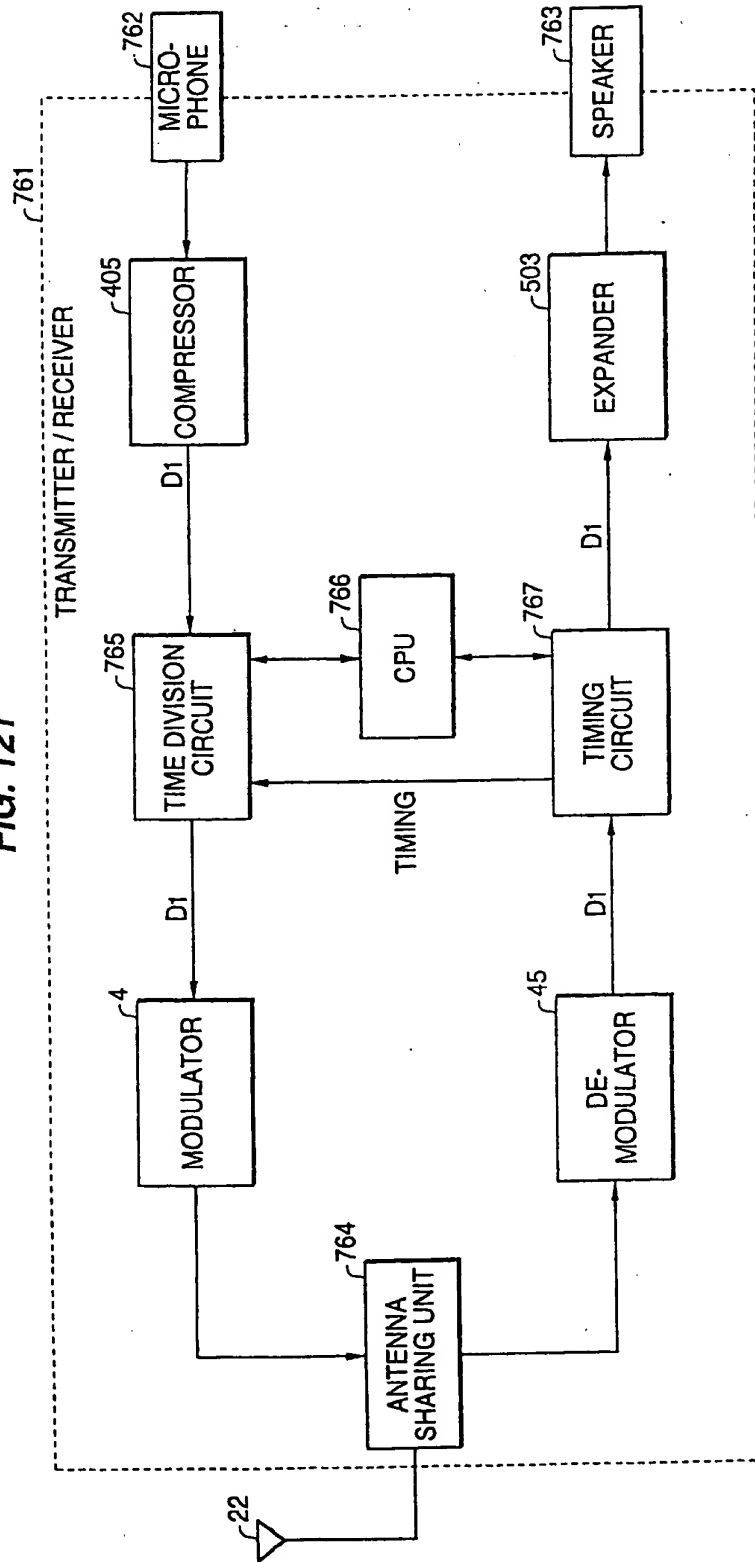
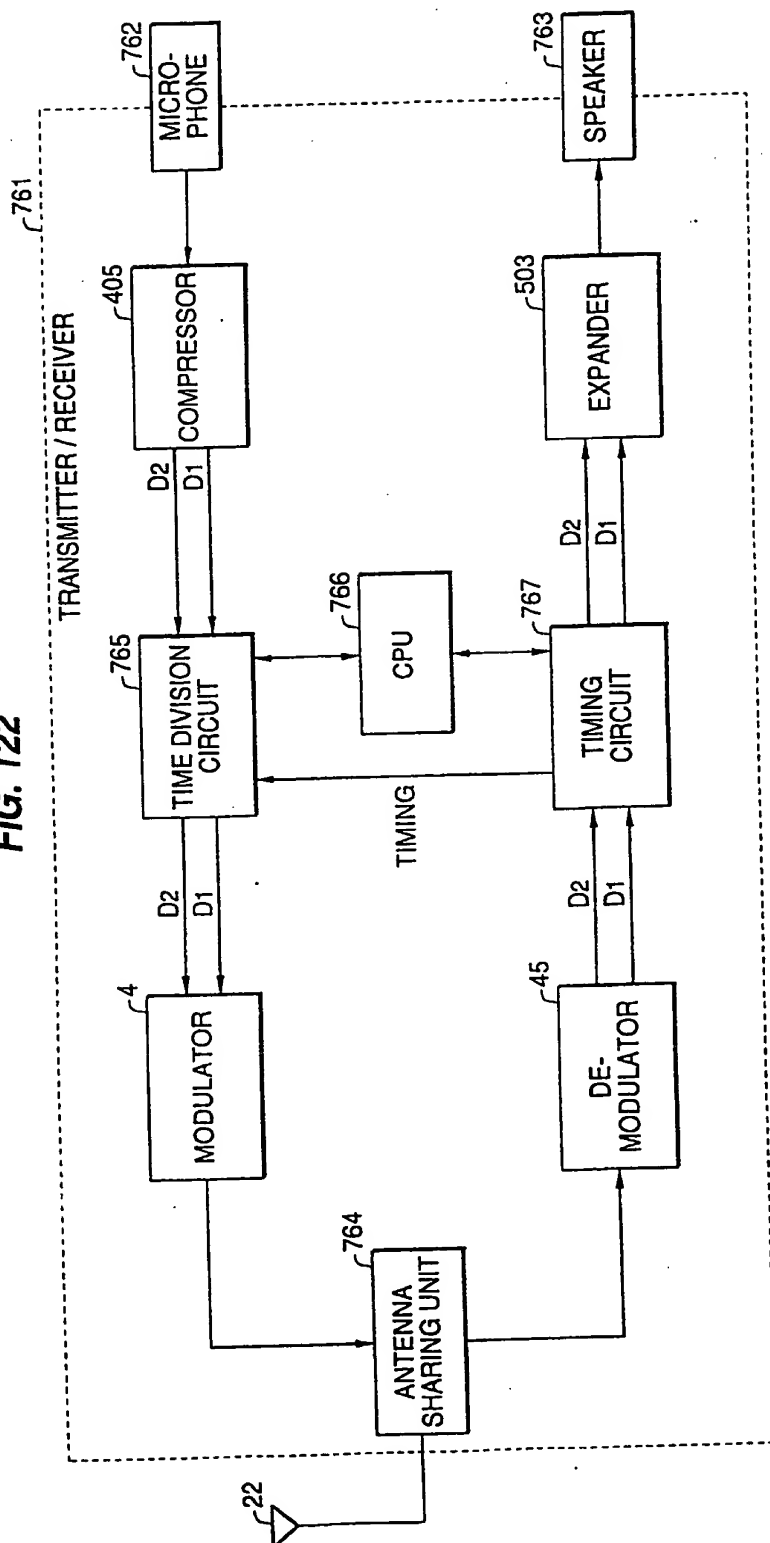
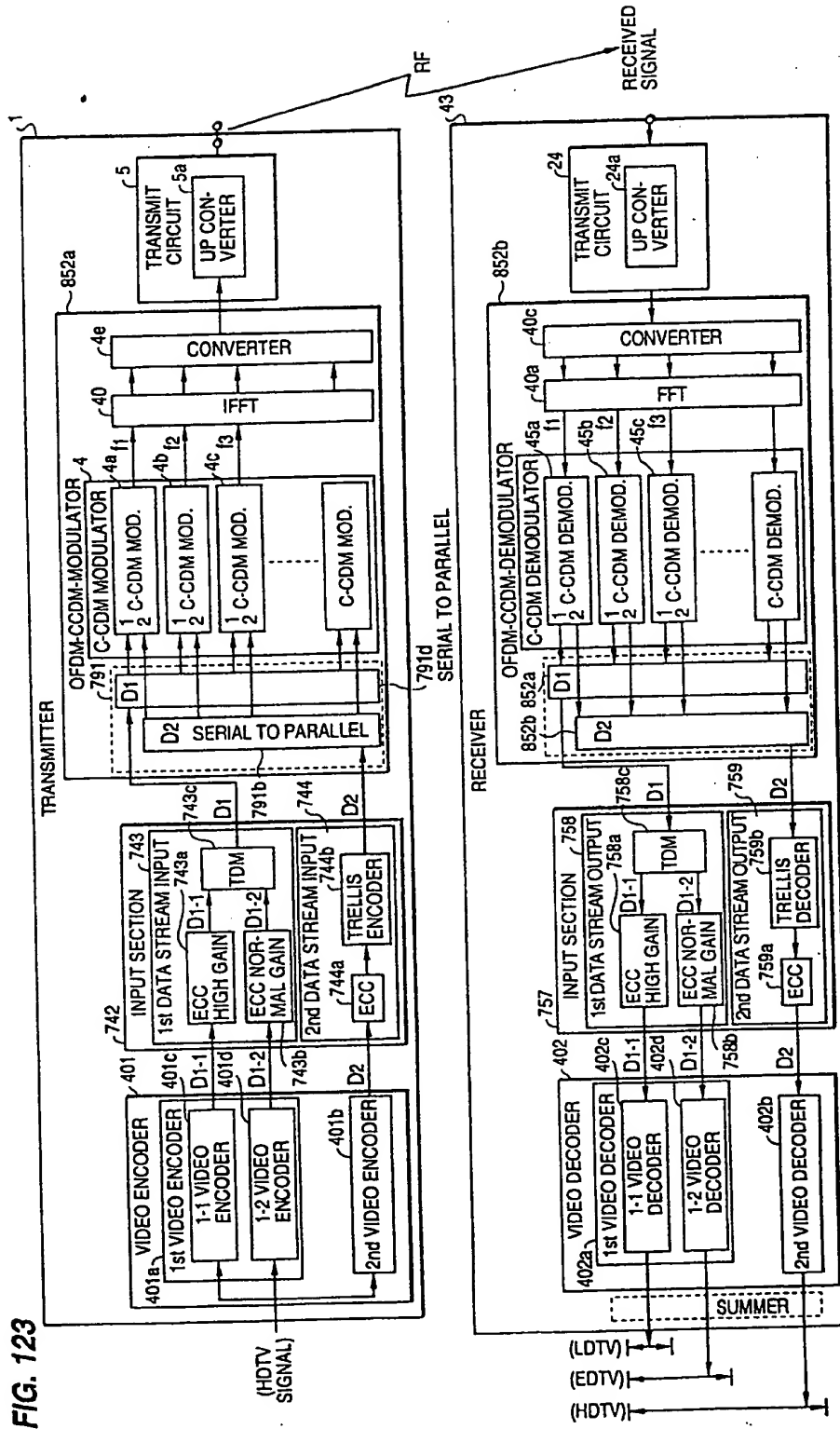


FIG. 122





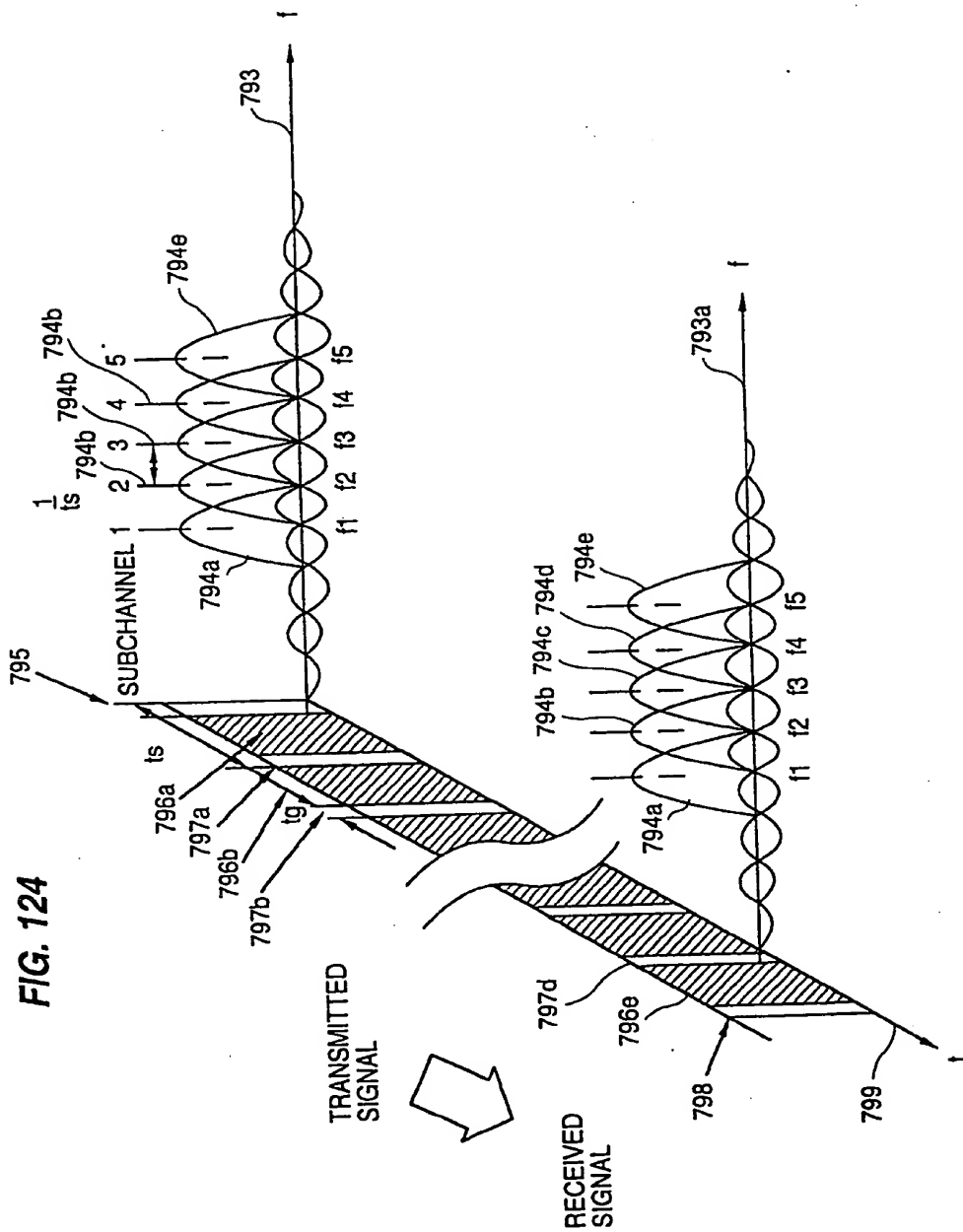


FIG. 125(a)

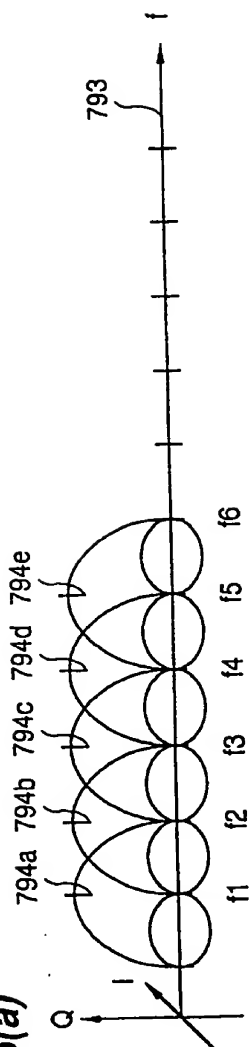
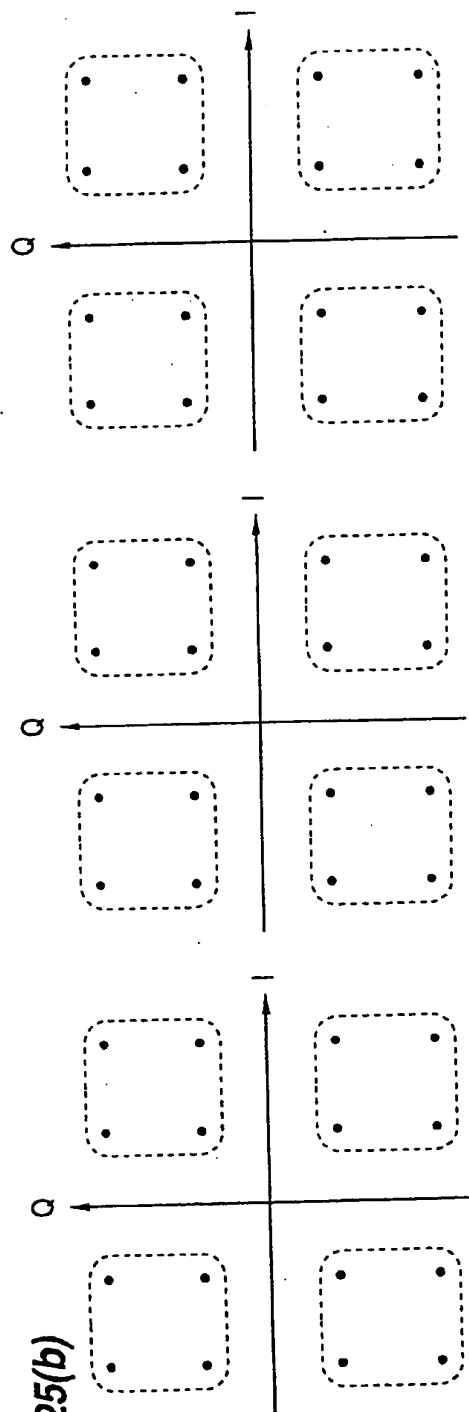


FIG. 125(b)



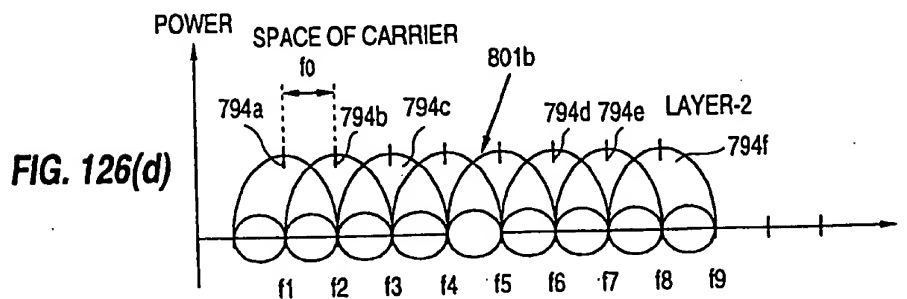
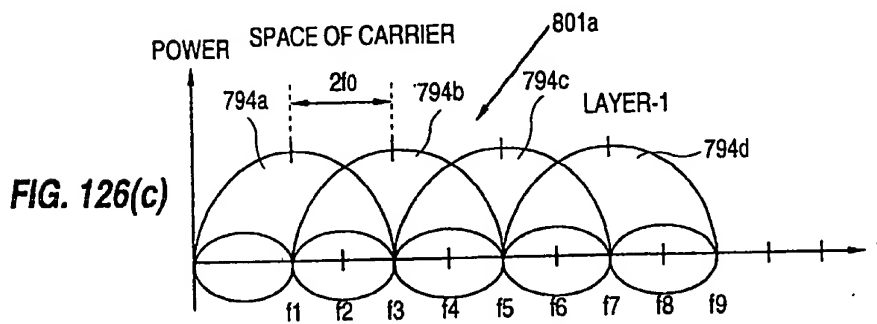
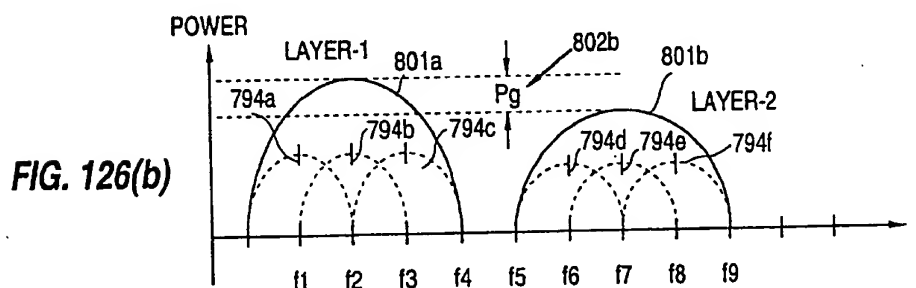
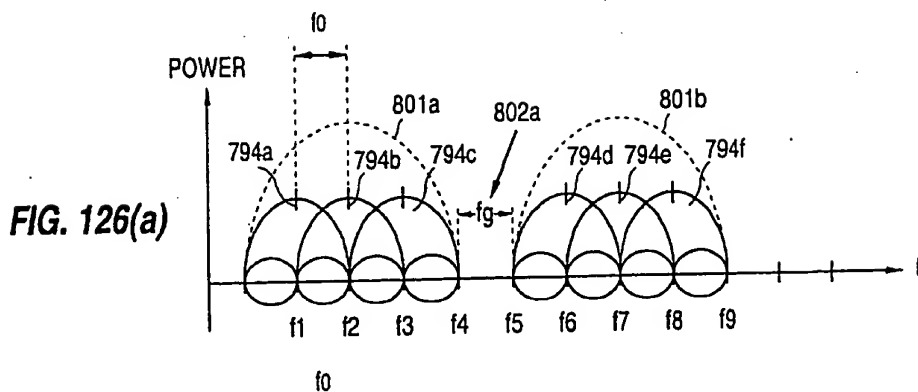


FIG. 127

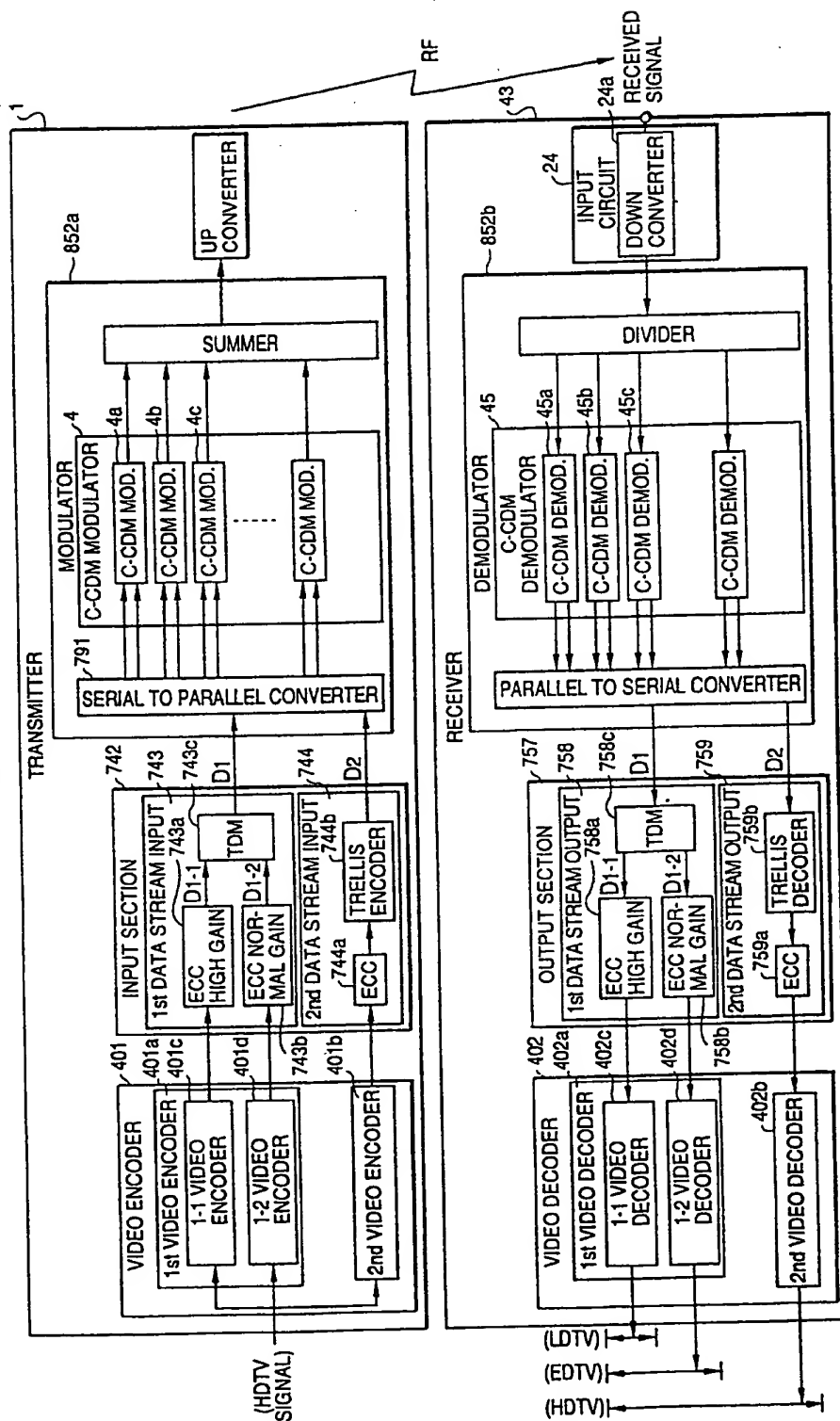


FIG. 128(a)

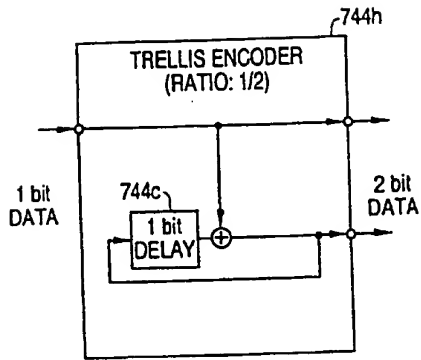


FIG. 128(d)

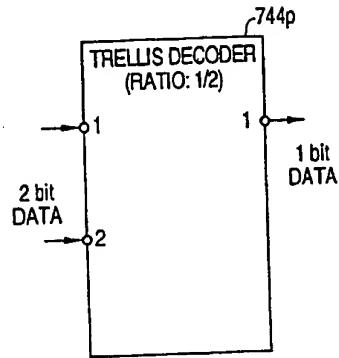


FIG. 128(b)

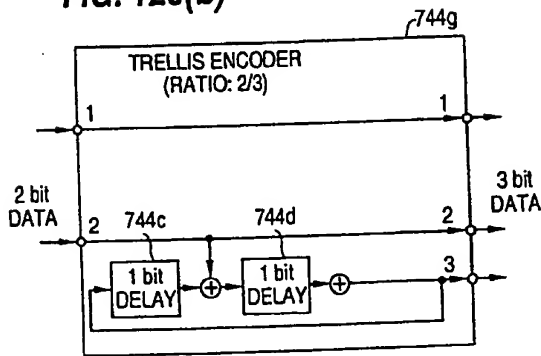


FIG. 128(e)

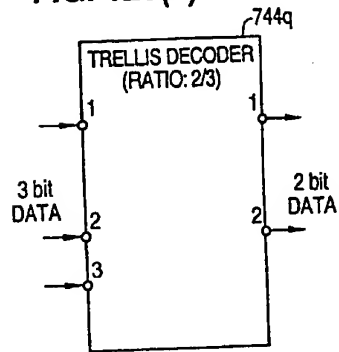


FIG. 128(c)

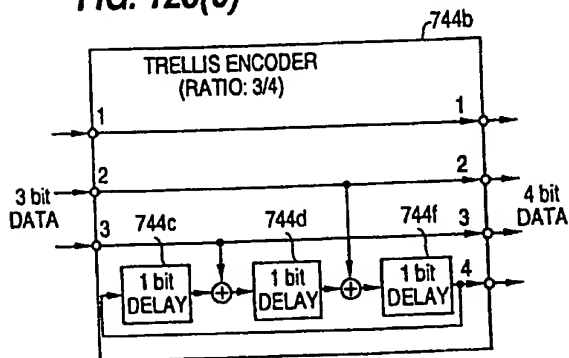


FIG. 128(f)

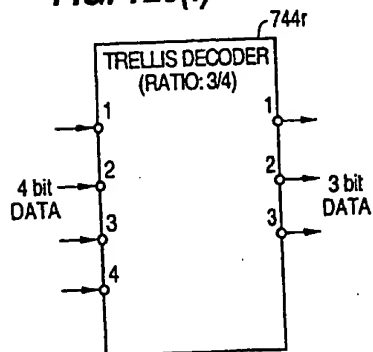


FIG. 129

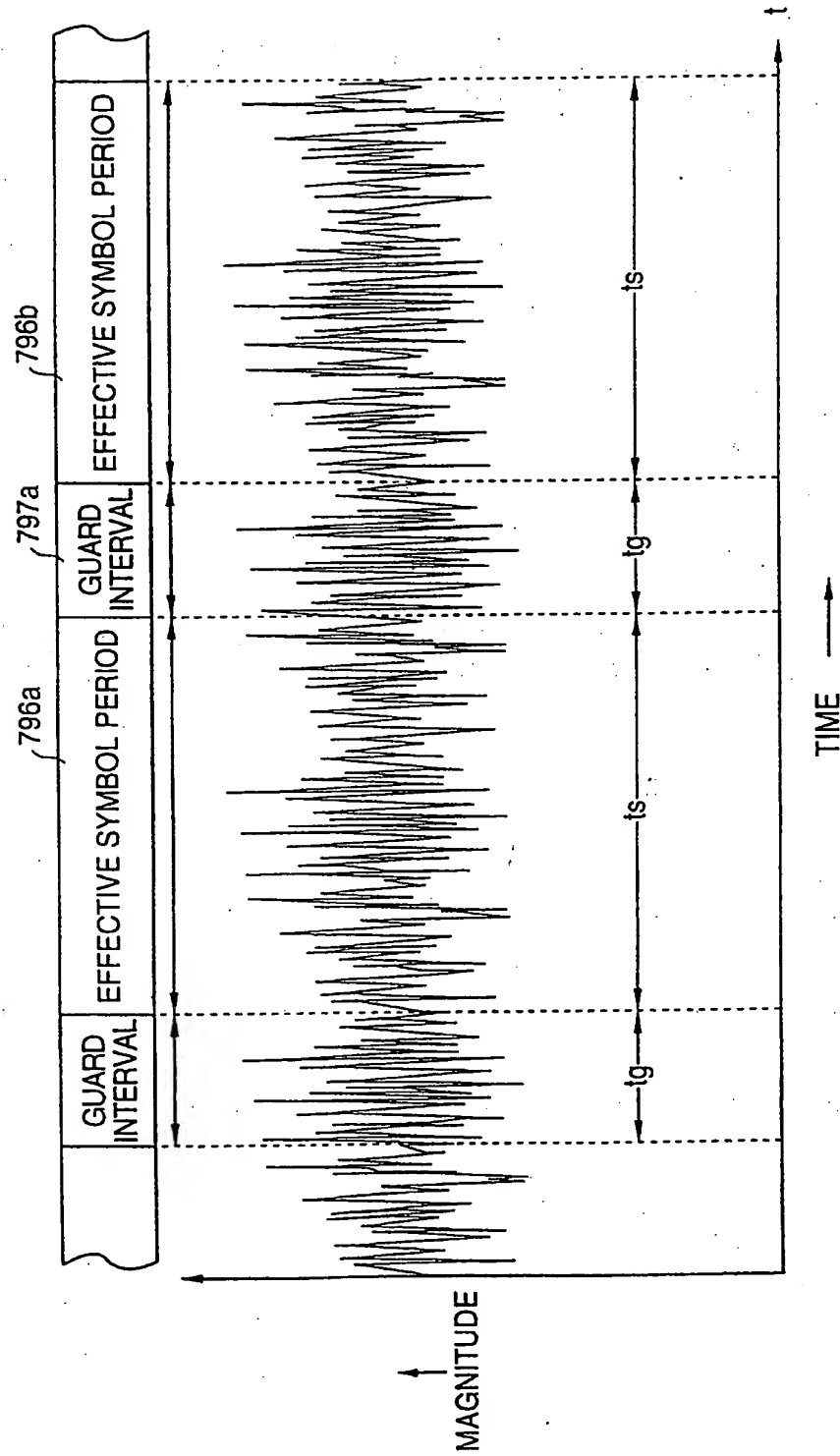


FIG. 130

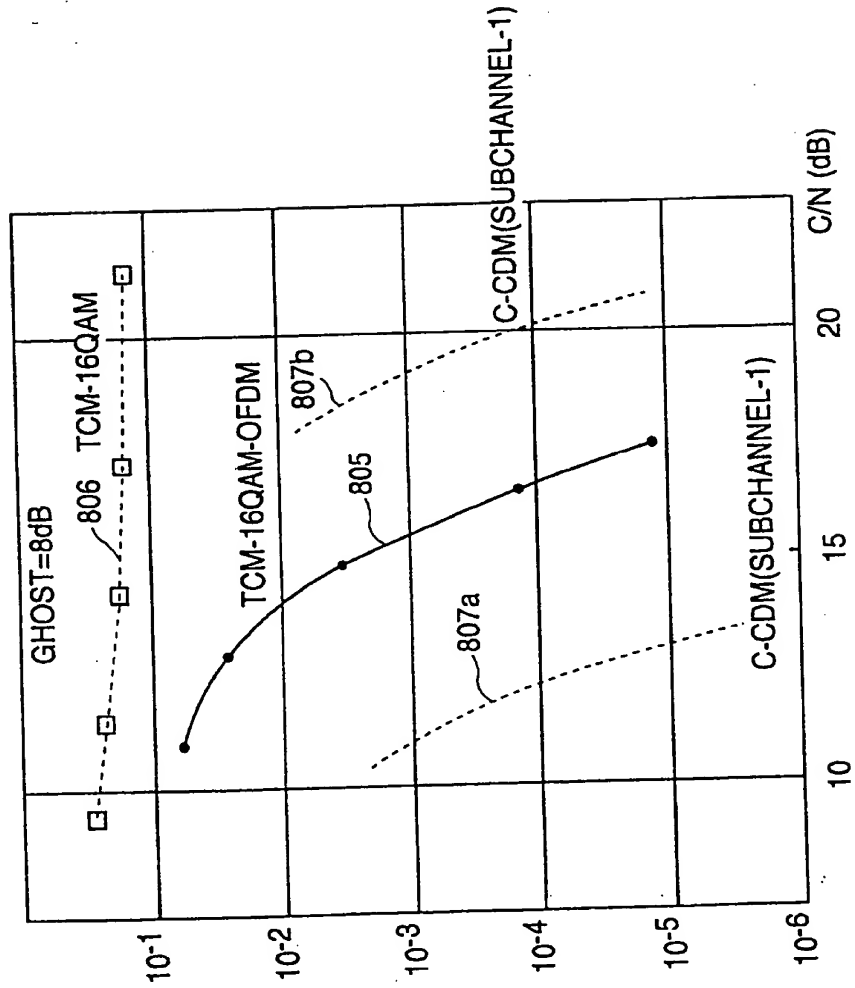


FIG. 131

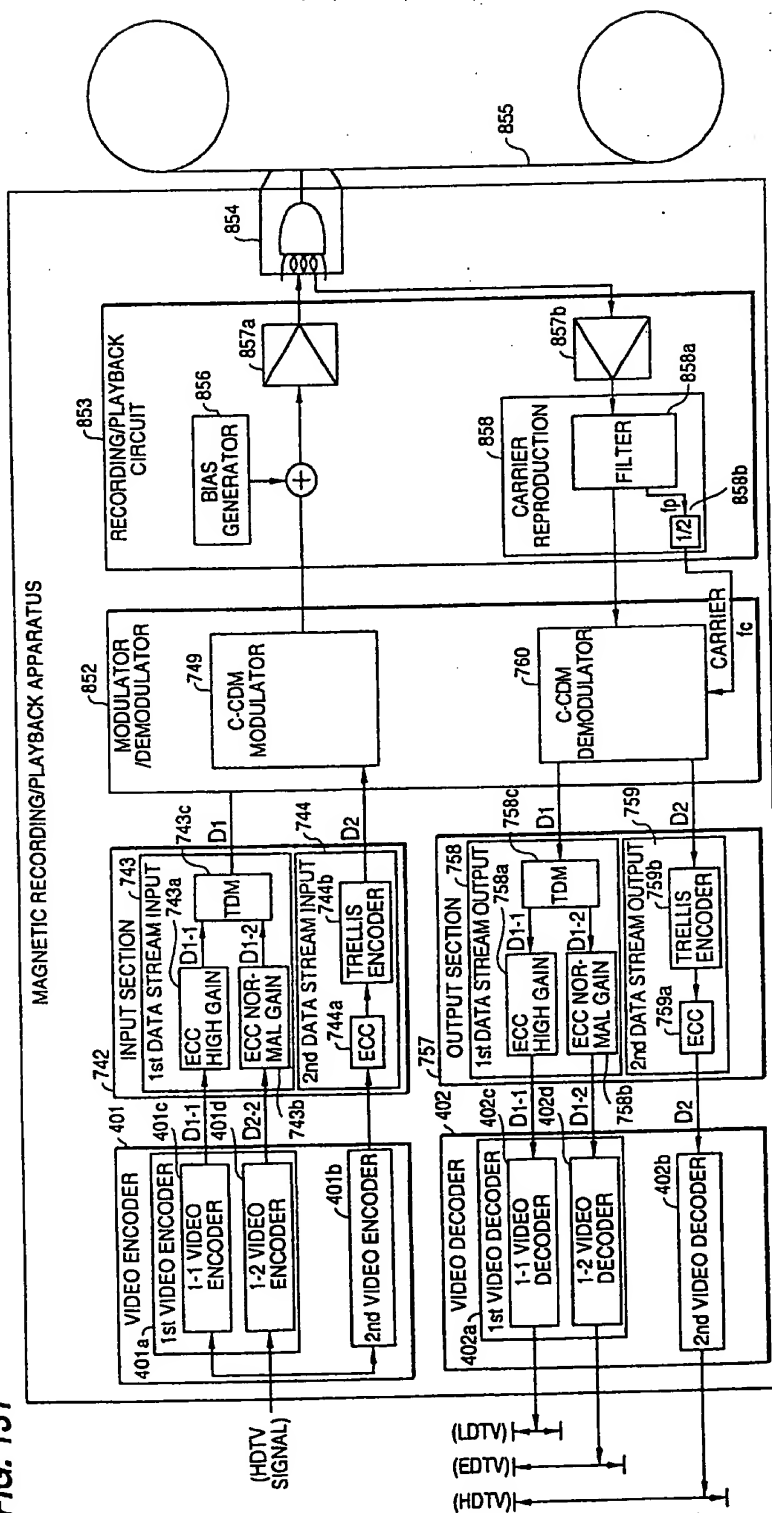


FIG. 132

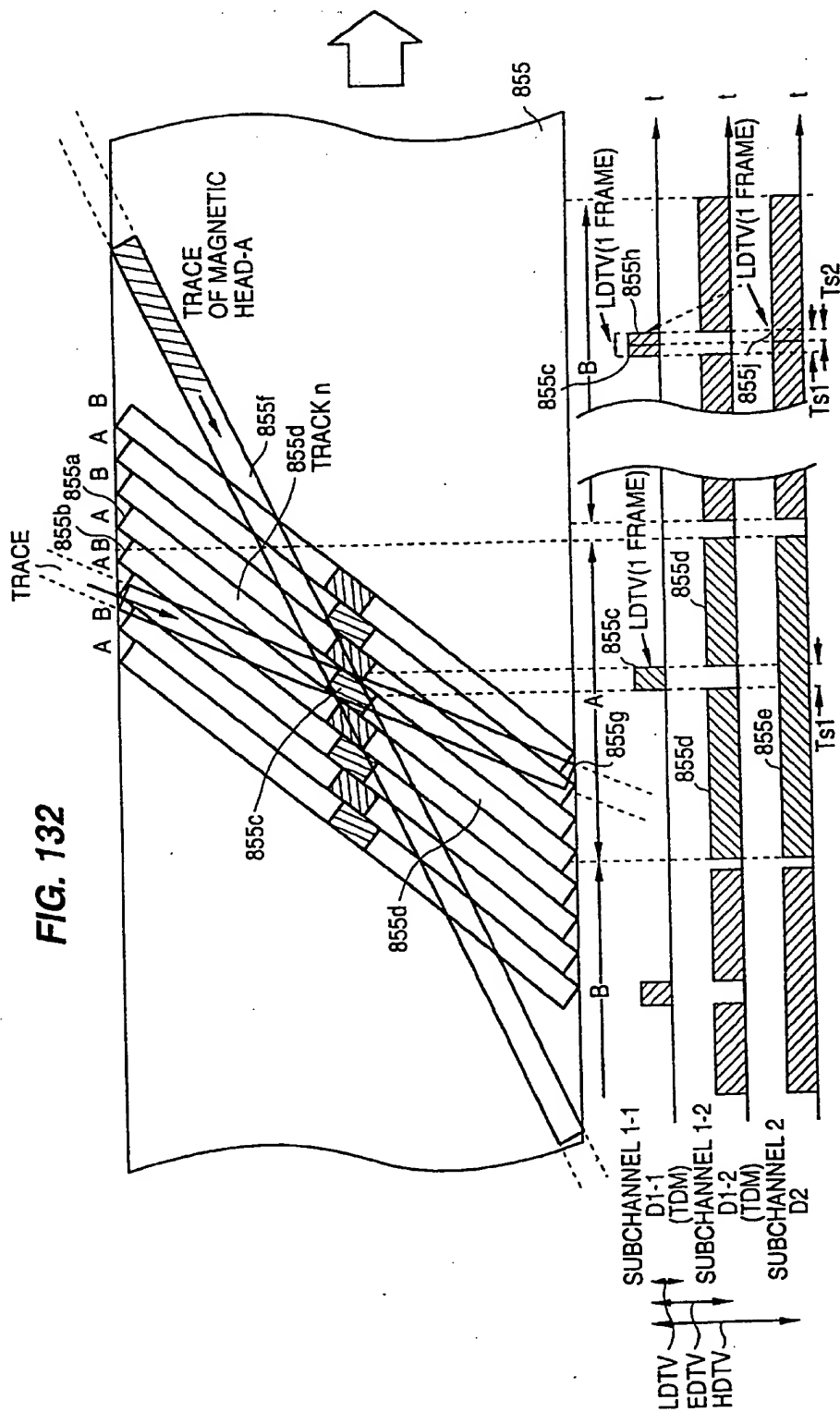


FIG. 133

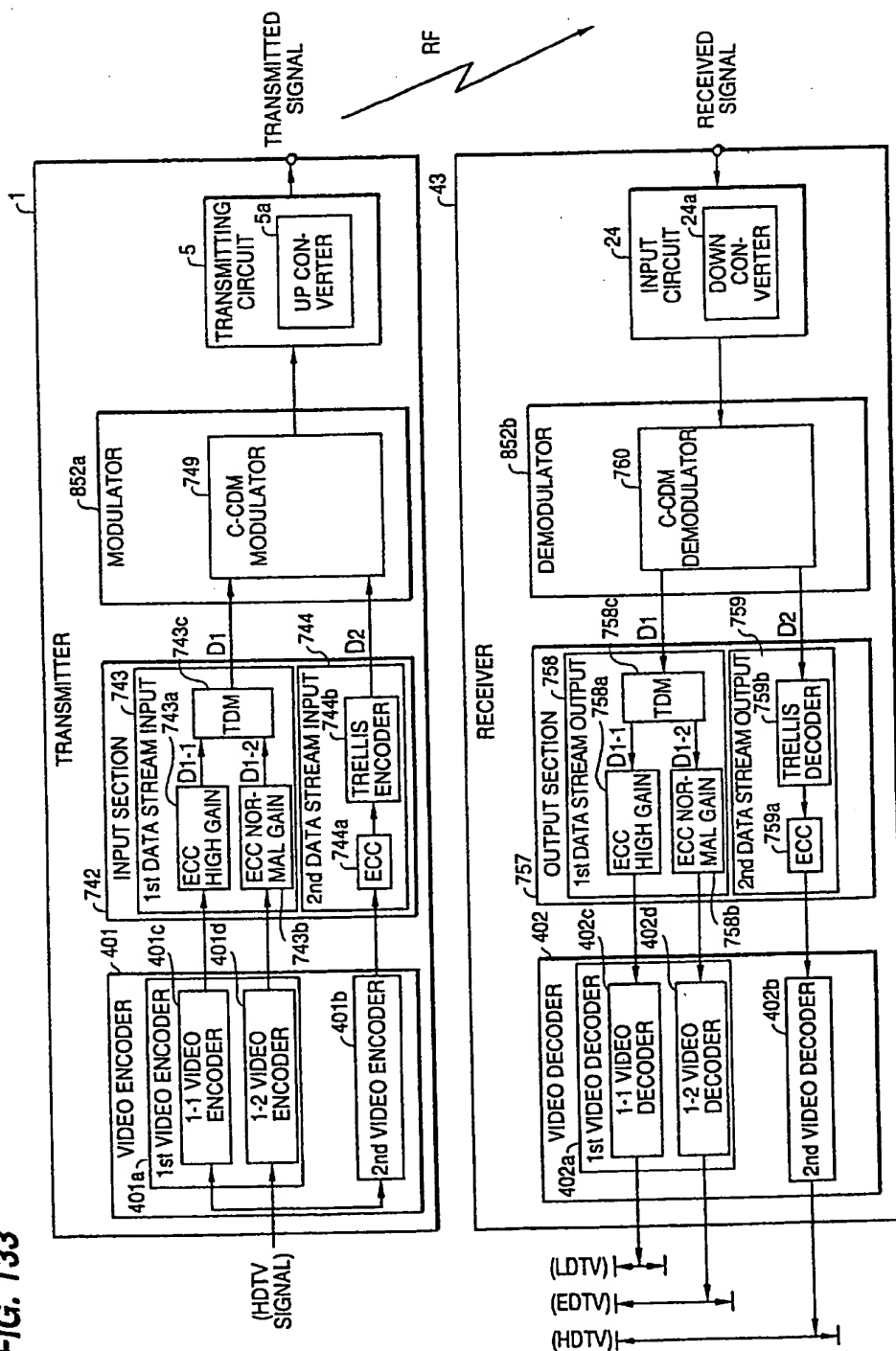


FIG. 134

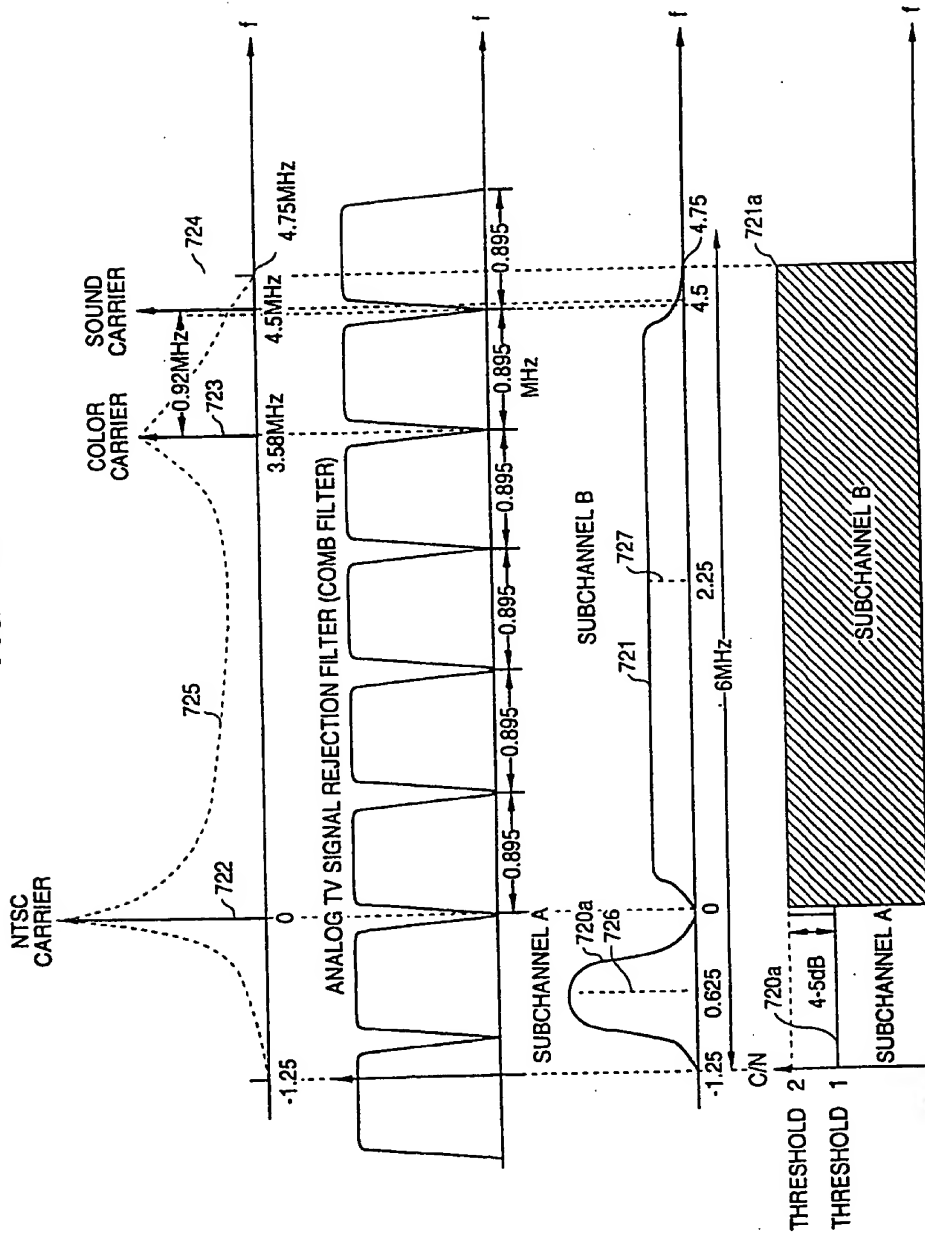


FIG. 135

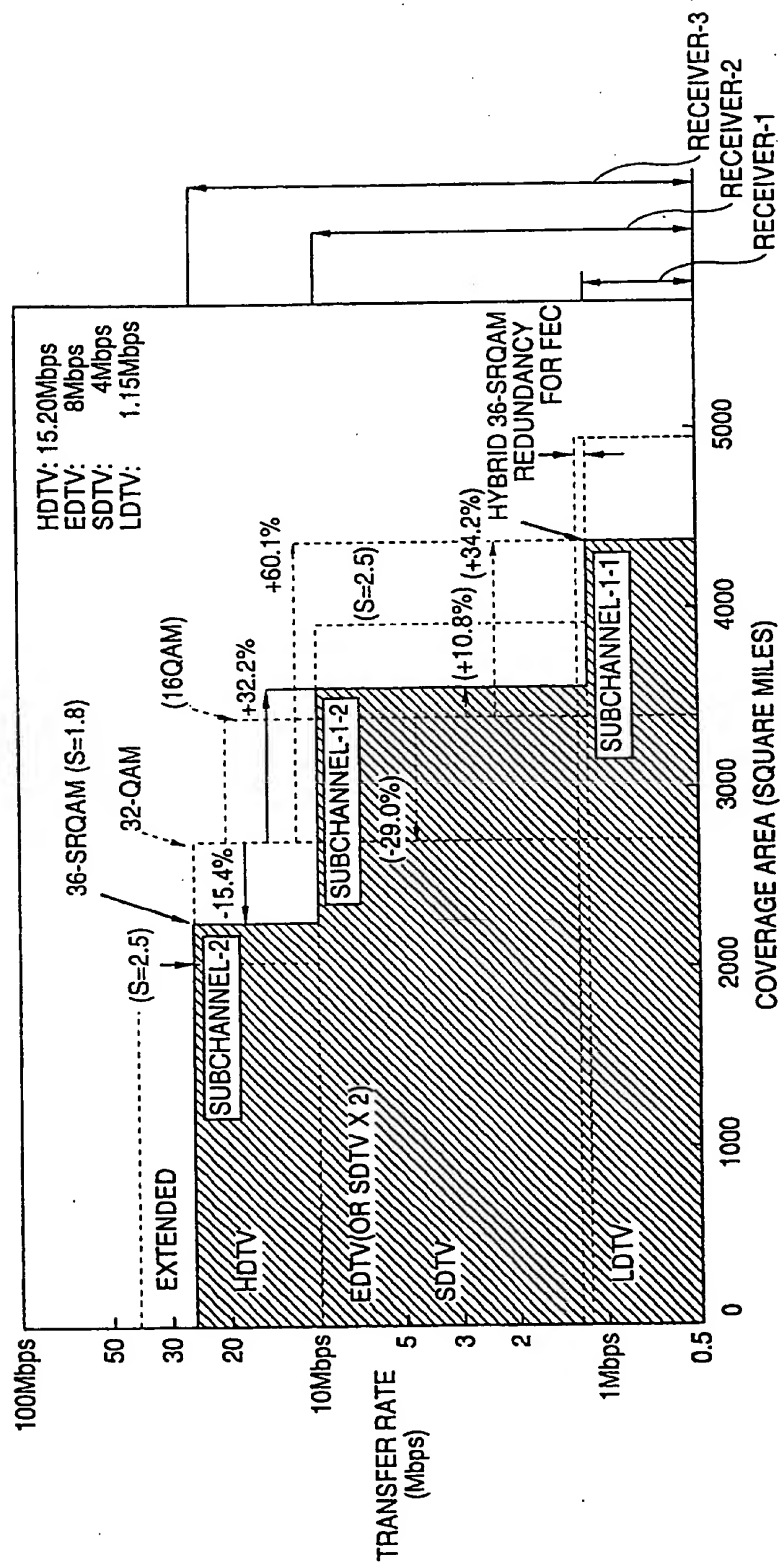


FIG. 136

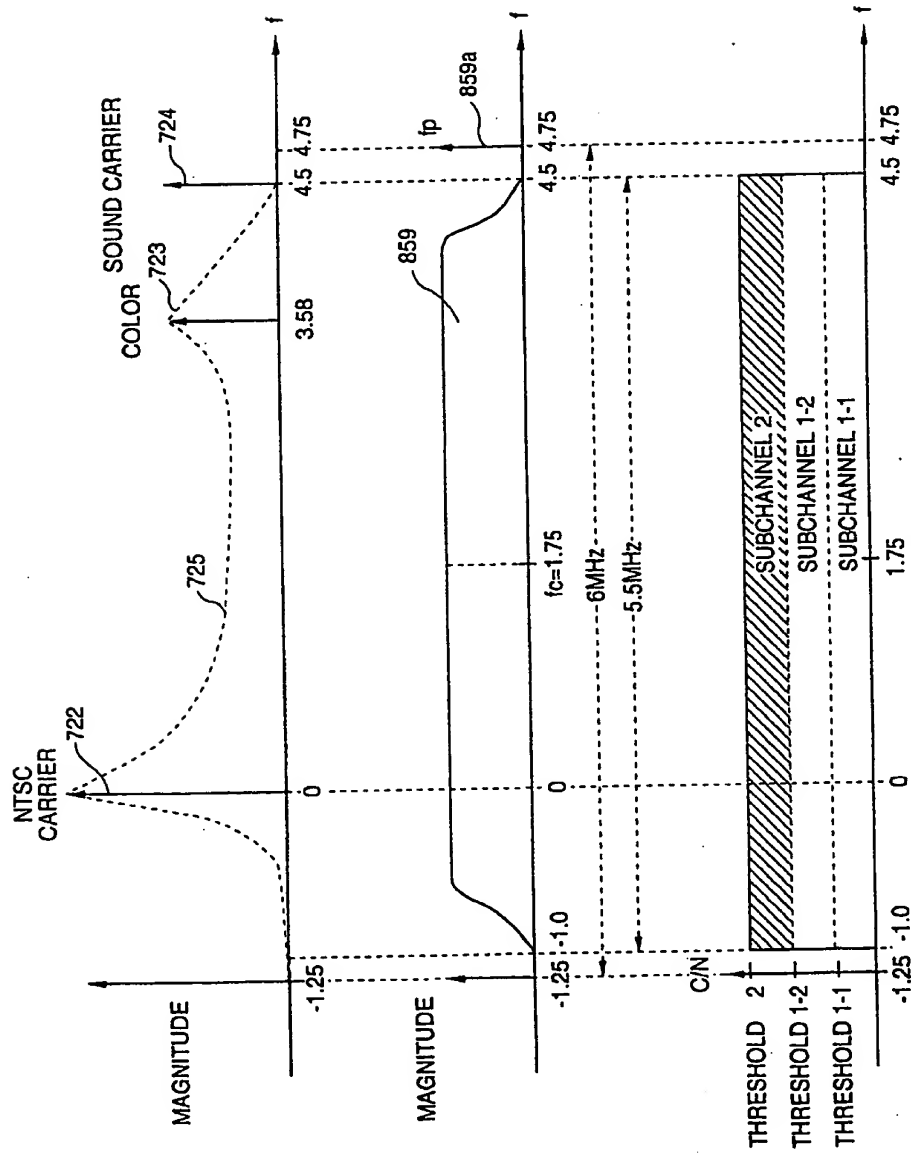
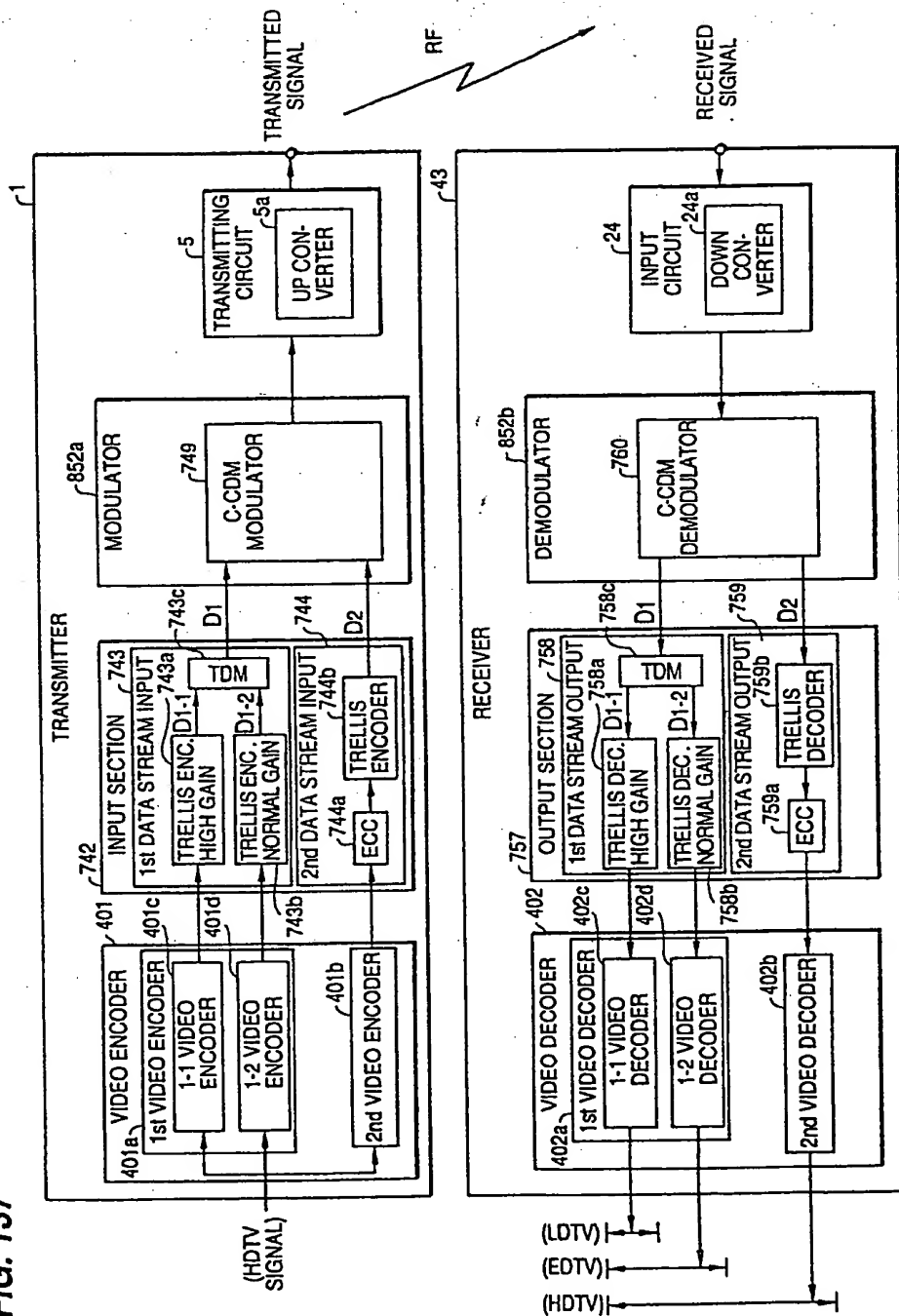


FIG. 137



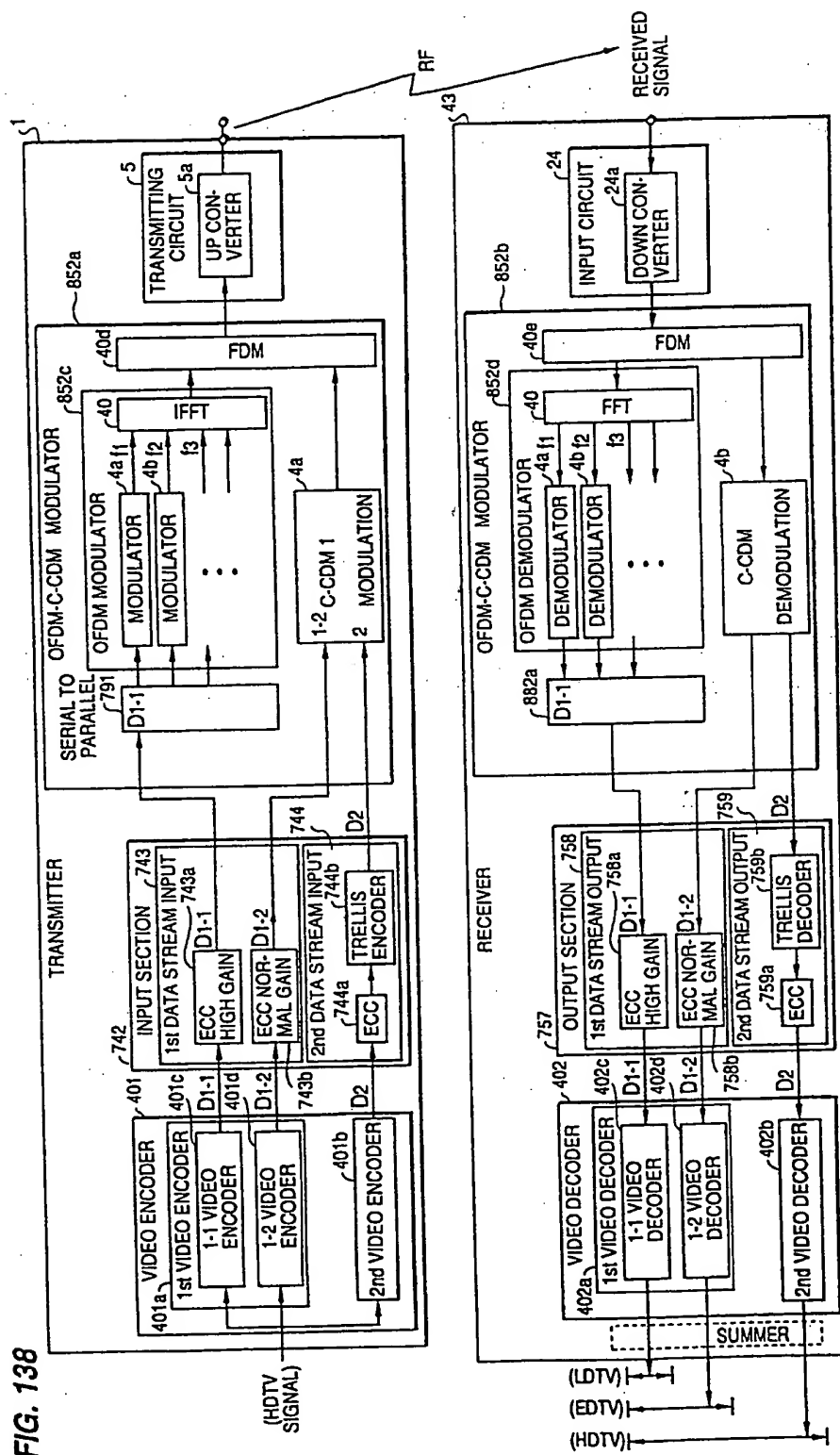


FIG. 139

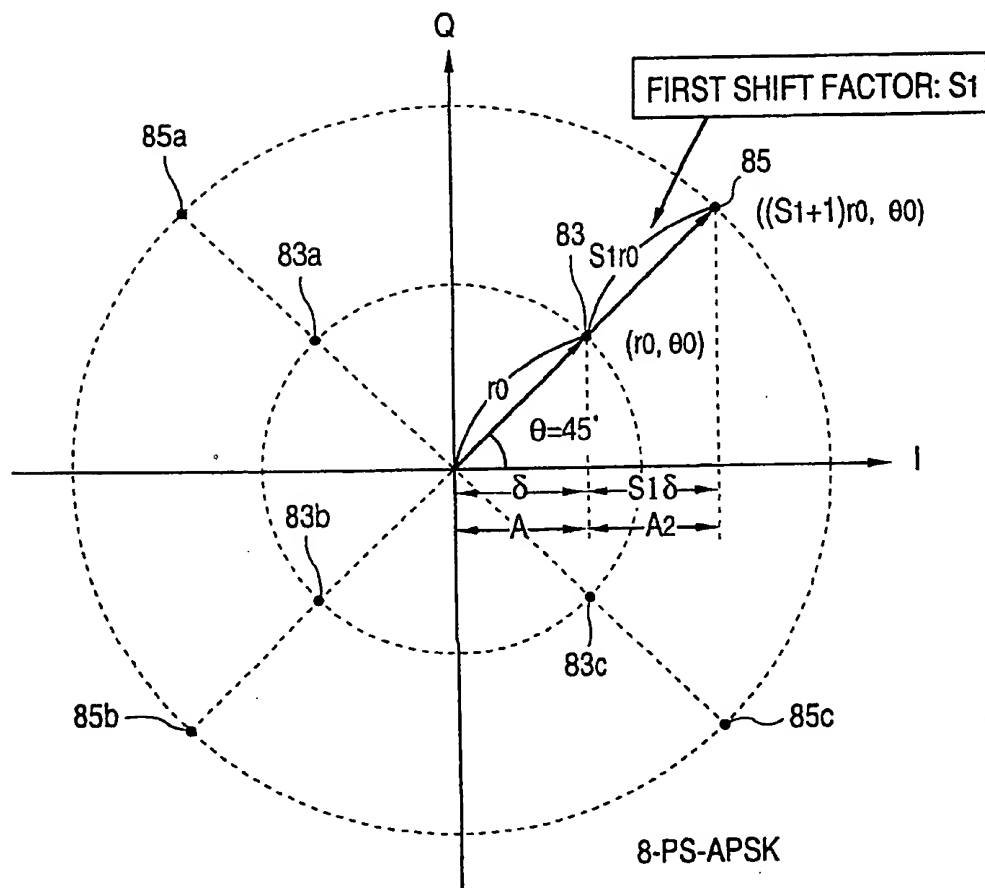


FIG. 140

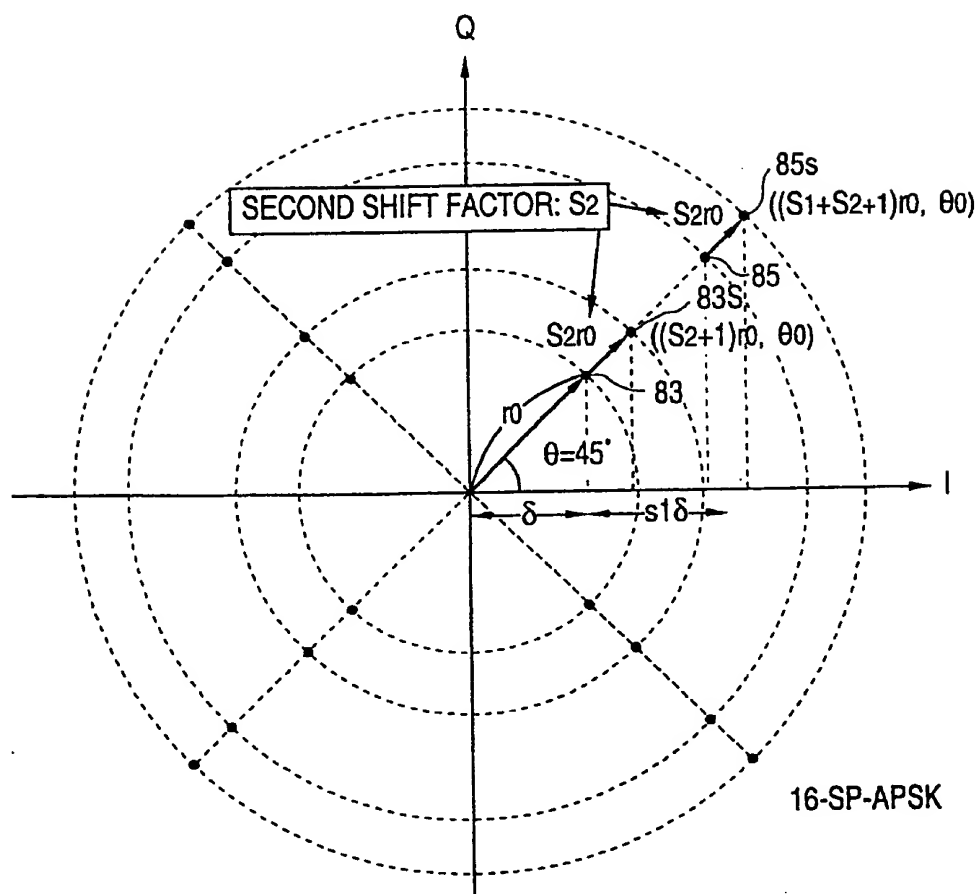


FIG. 141

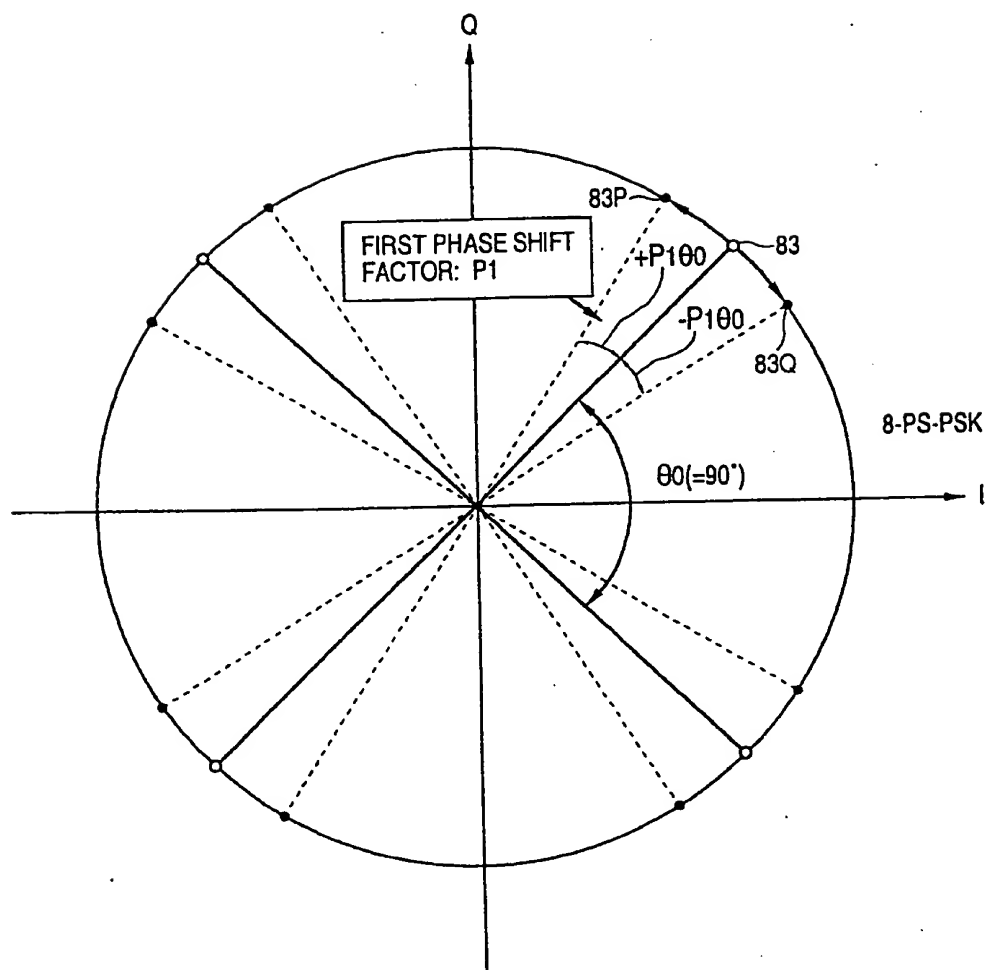


FIG. 142

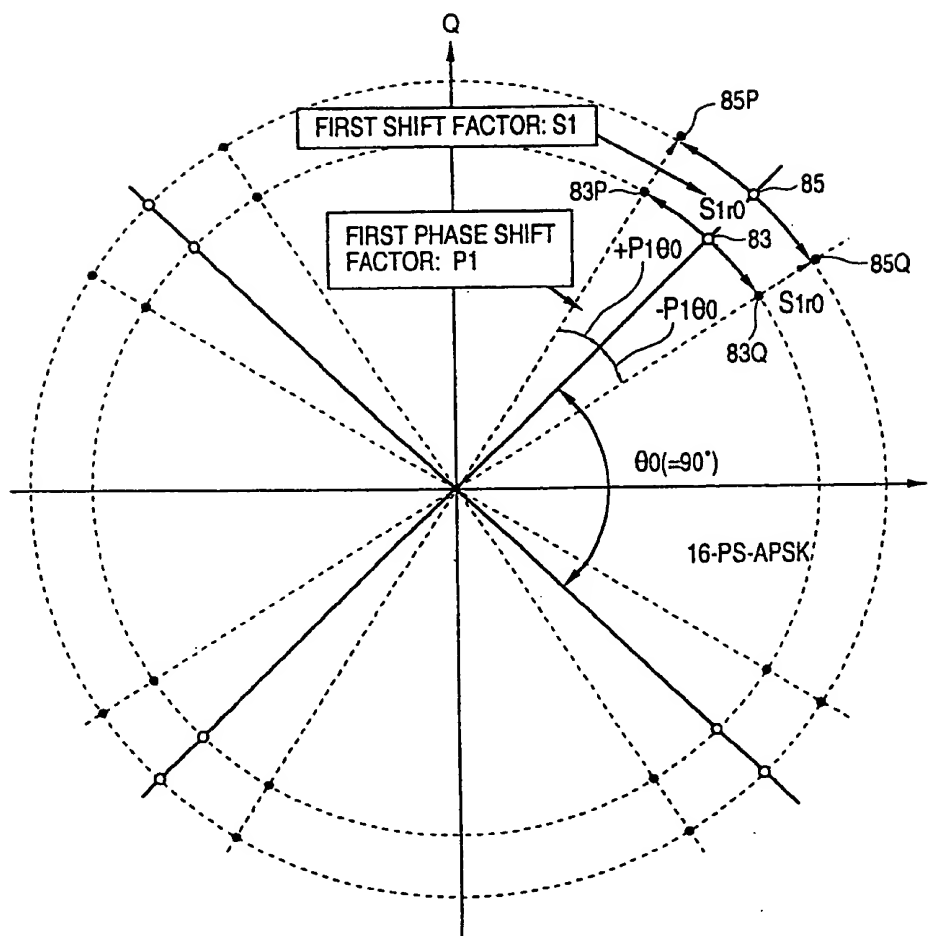
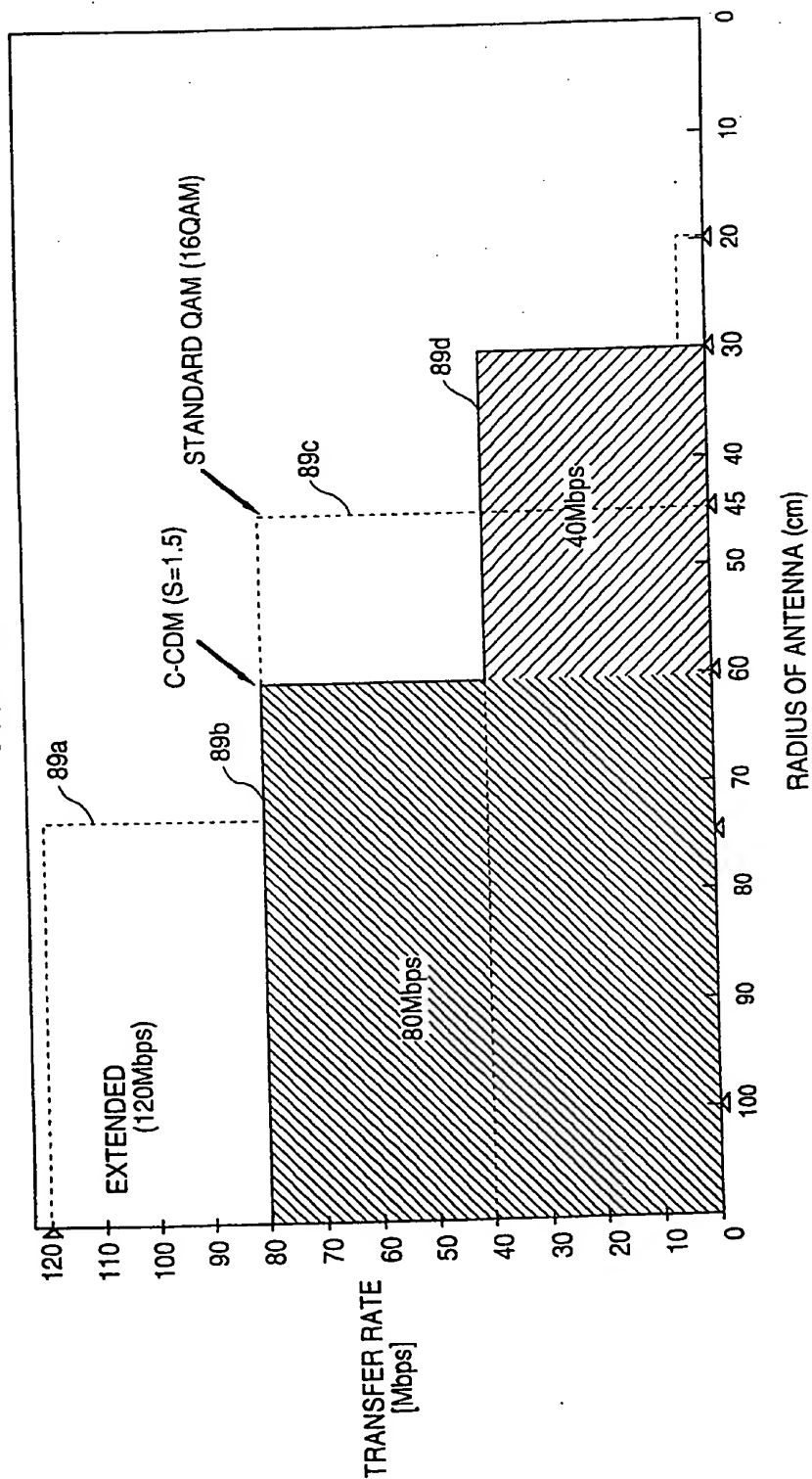


FIG. 143



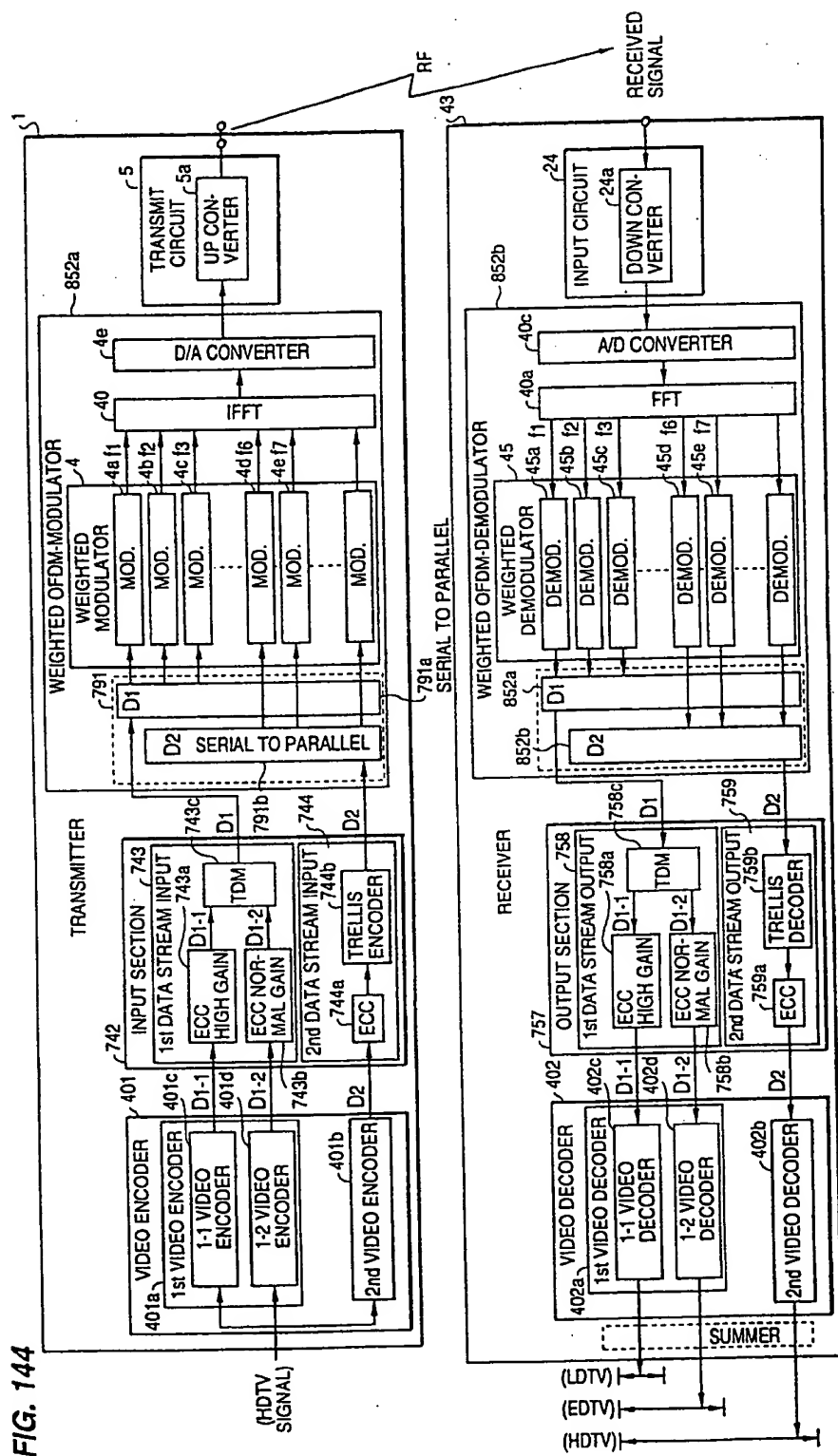


FIG. 145(a)

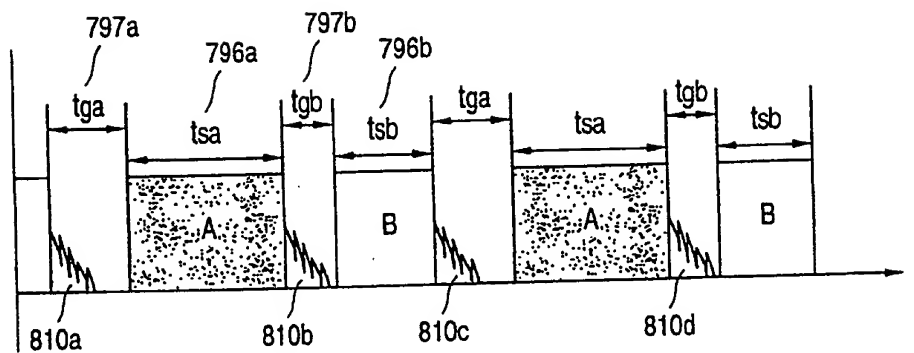


FIG. 145(b)

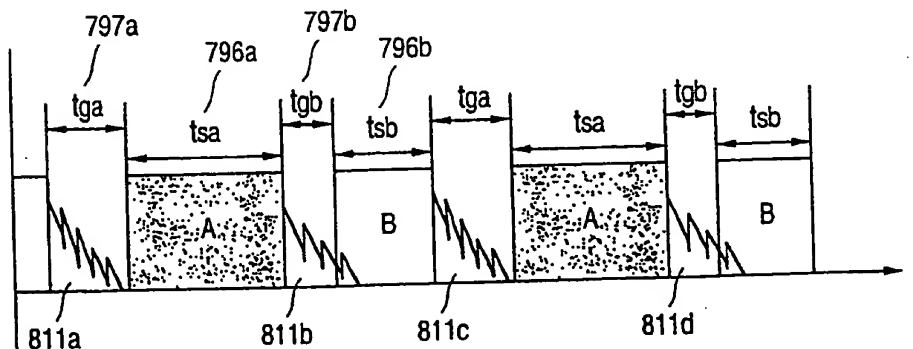


FIG. 147

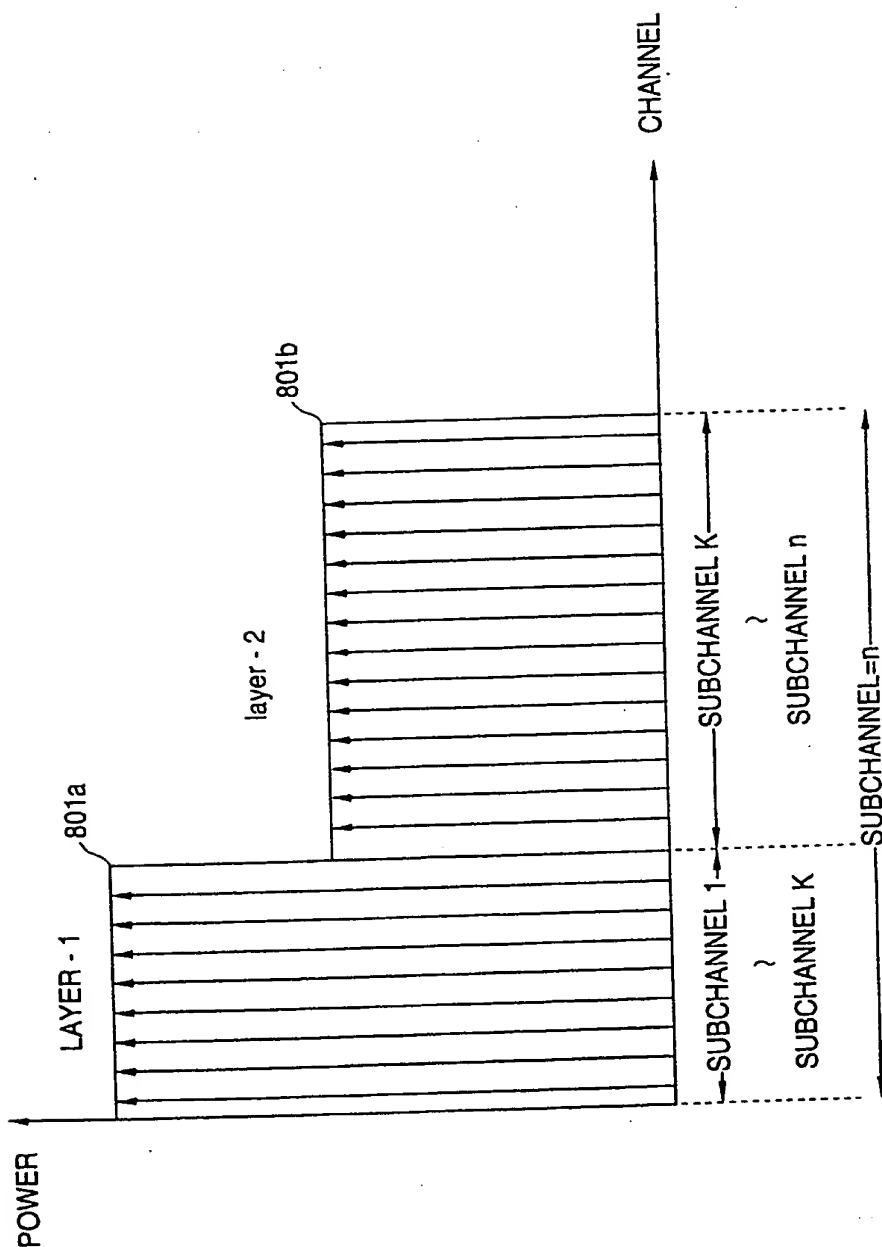
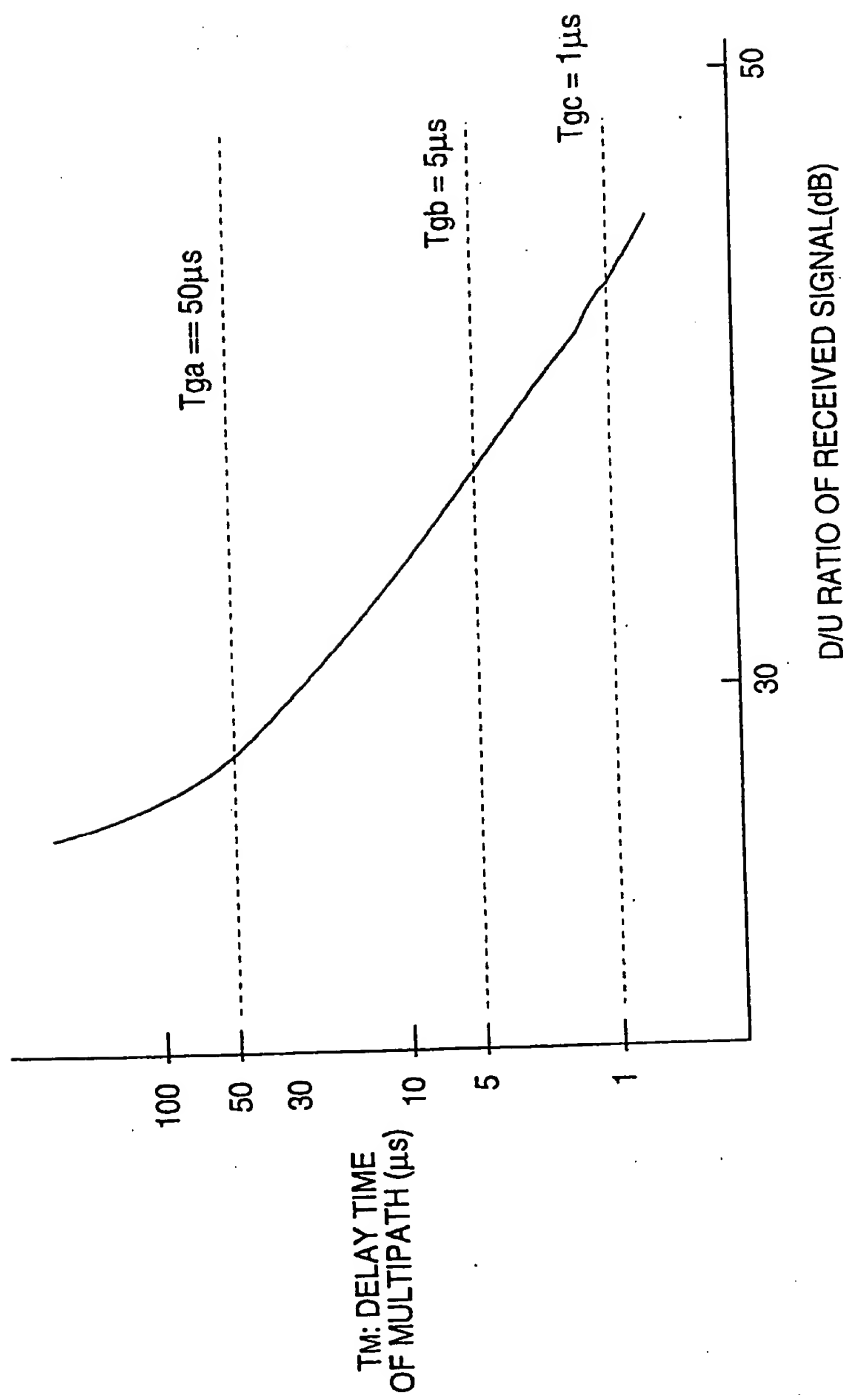


FIG. 148



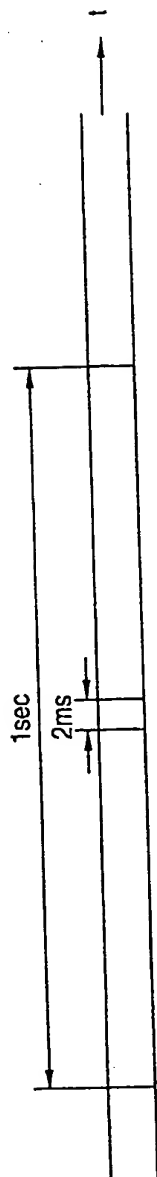


FIG. 149(a)

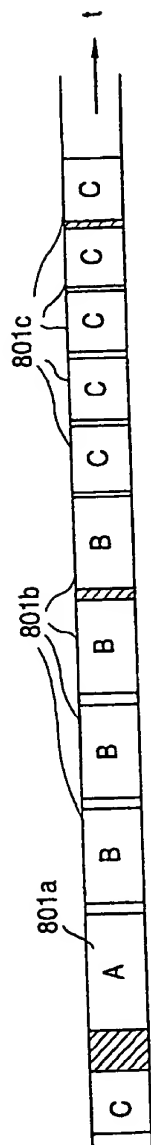


FIG. 149(b)

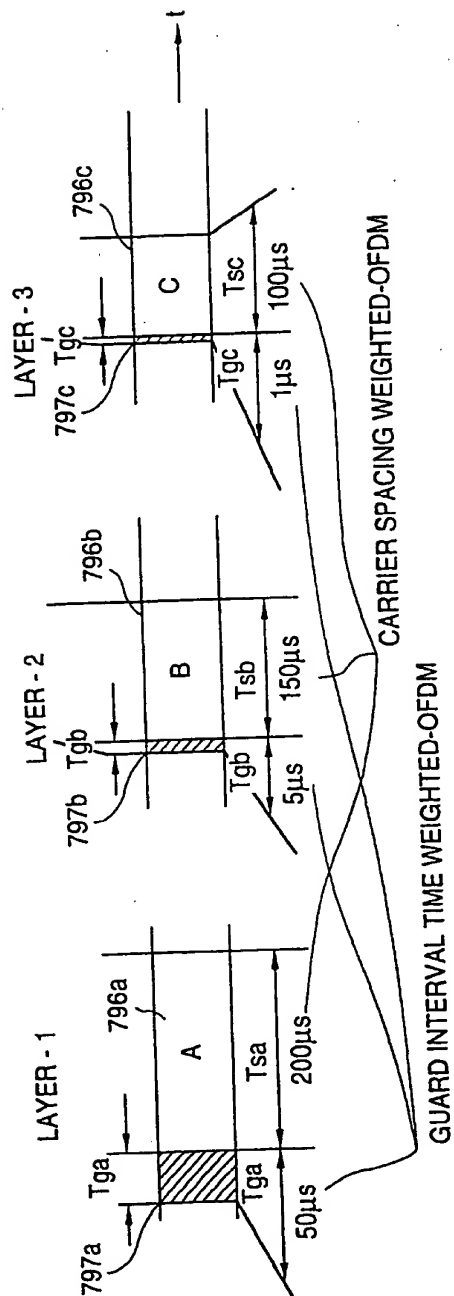


FIG. 149(c)

FIG. 150

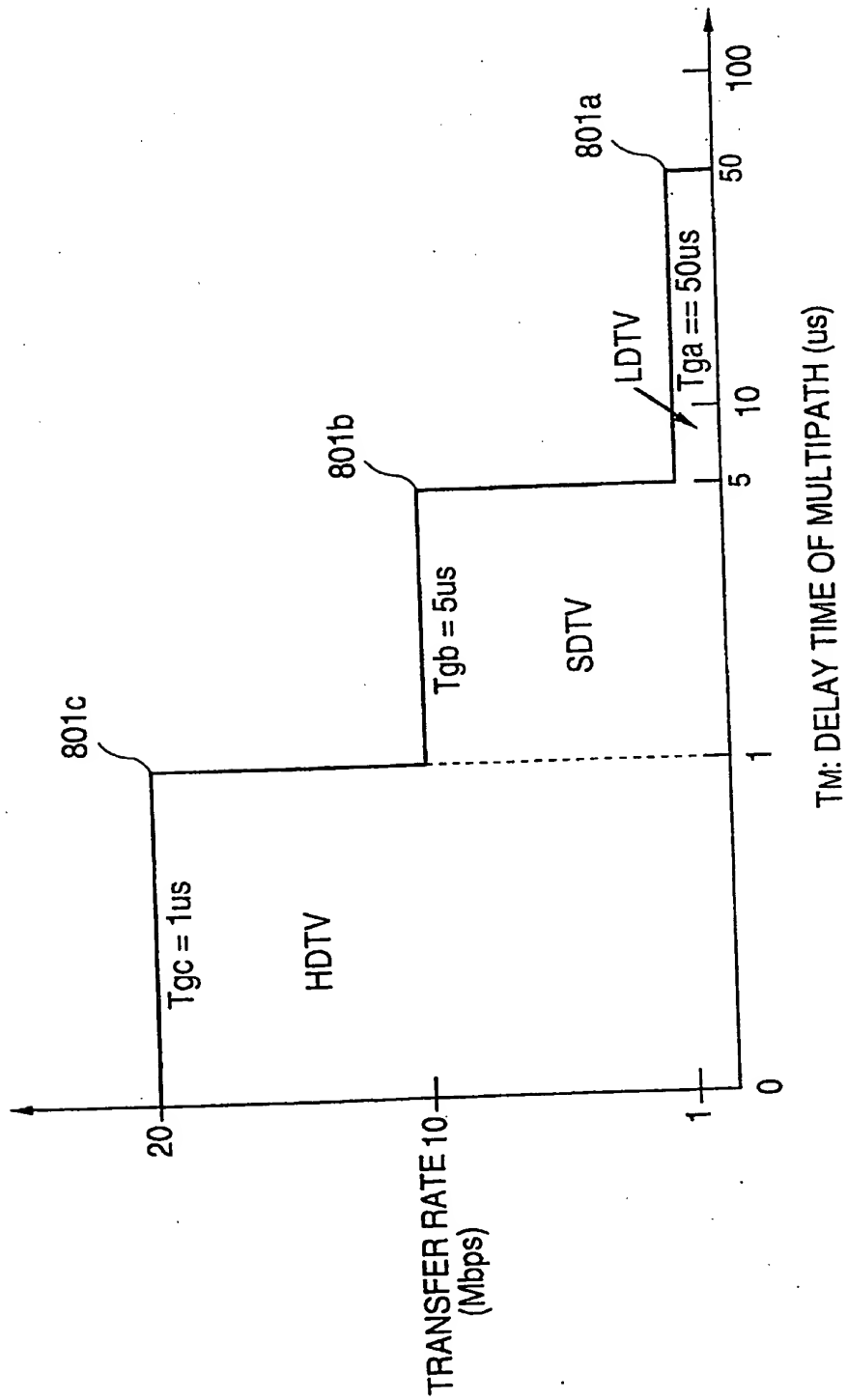


FIG. 151

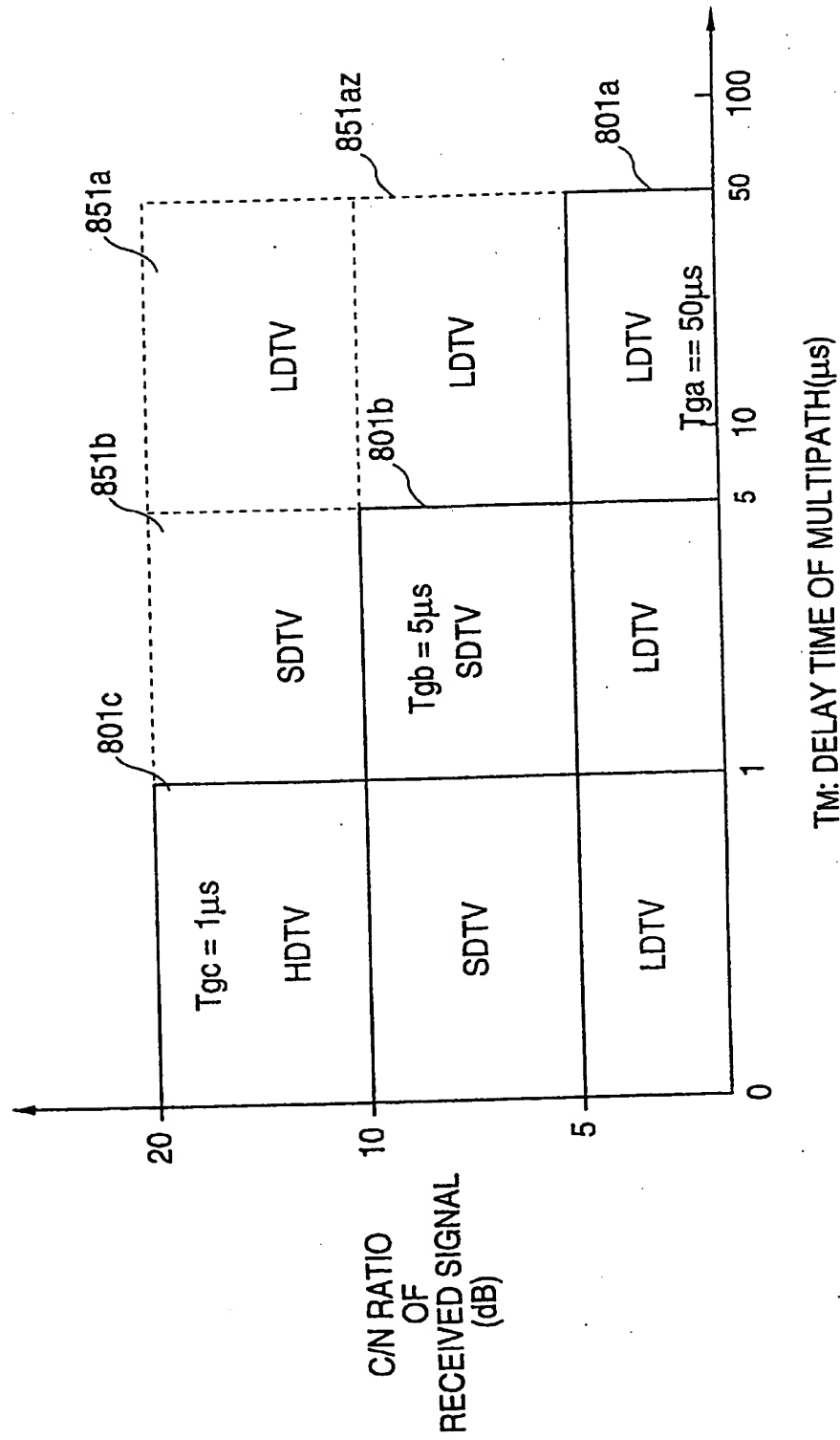
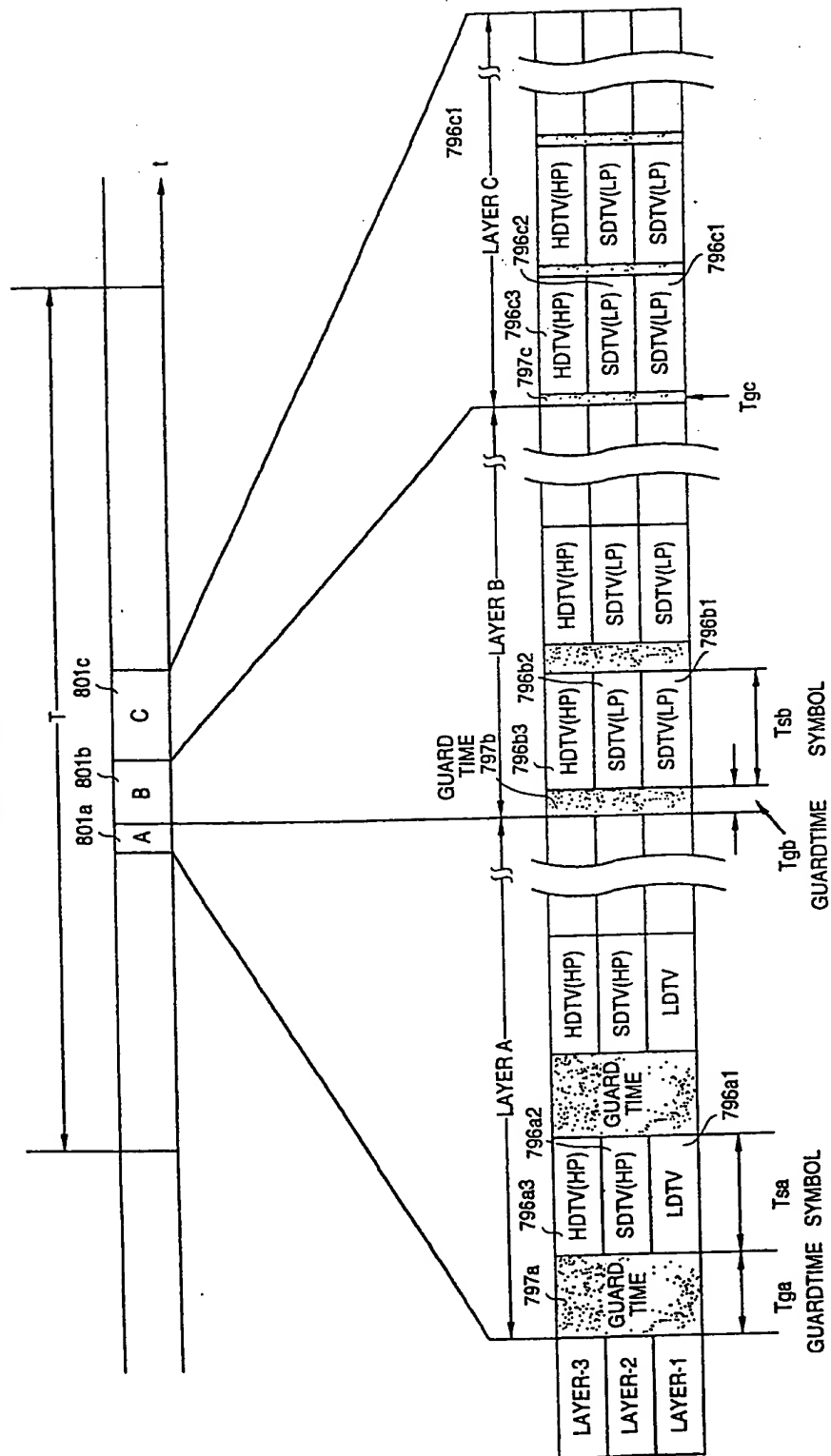


FIG. 152



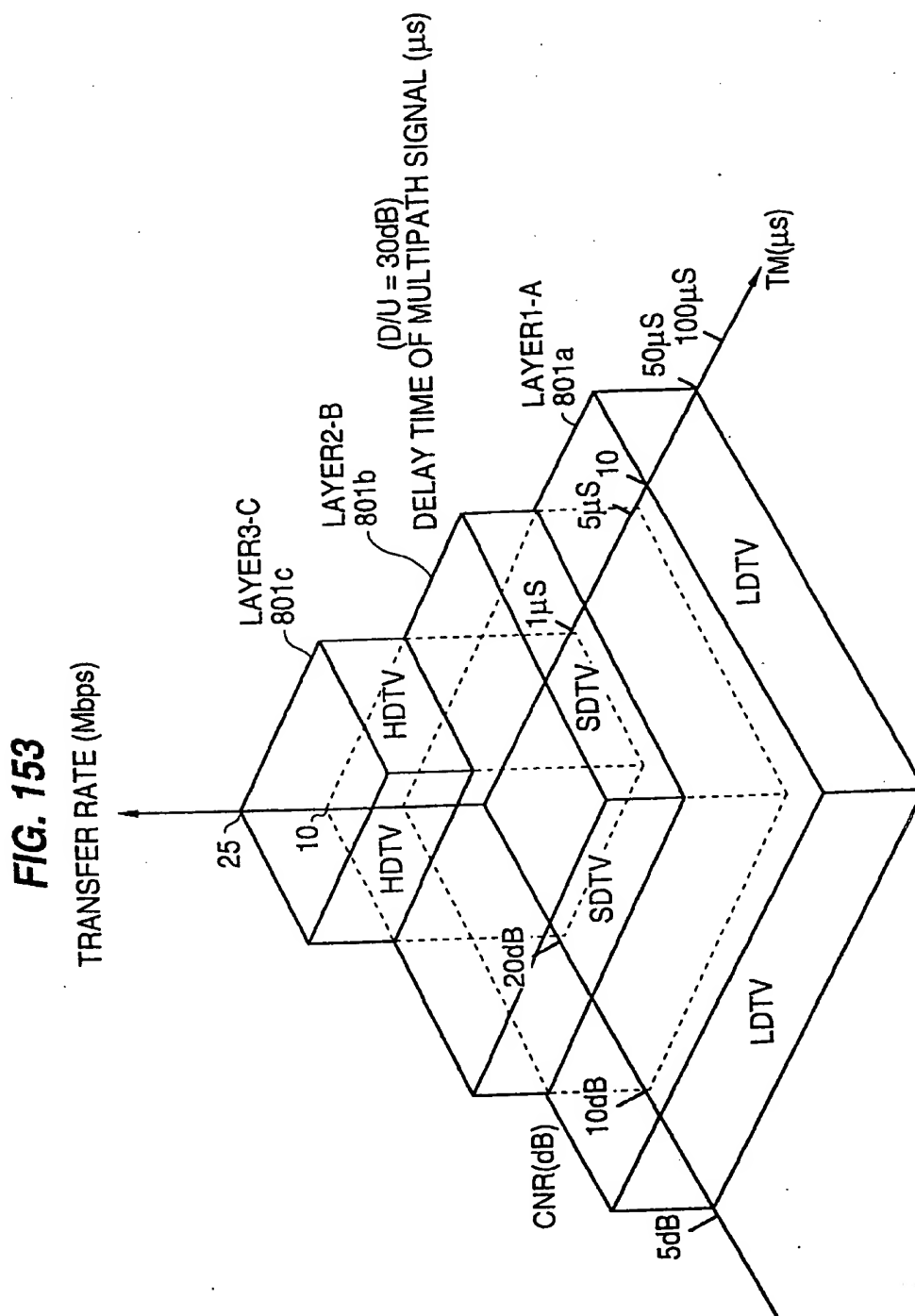


FIG. 154(a)

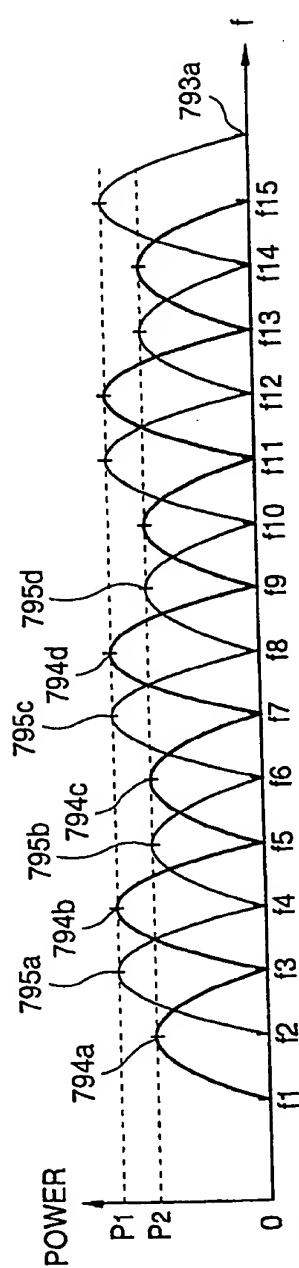


FIG. 154(b)

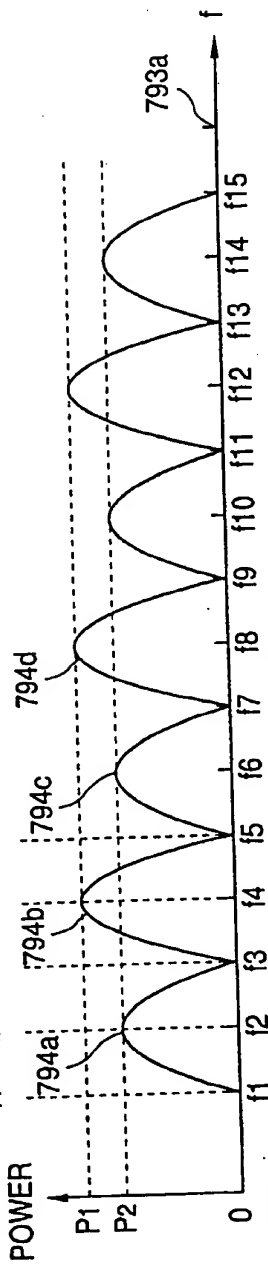


FIG. 154(c)

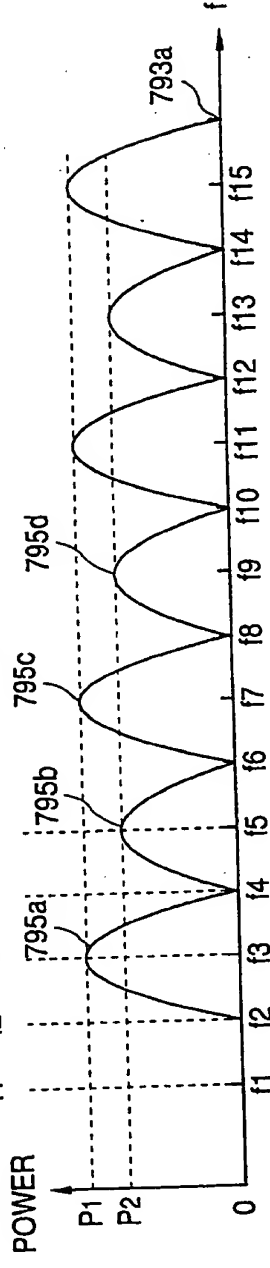


FIG. 155

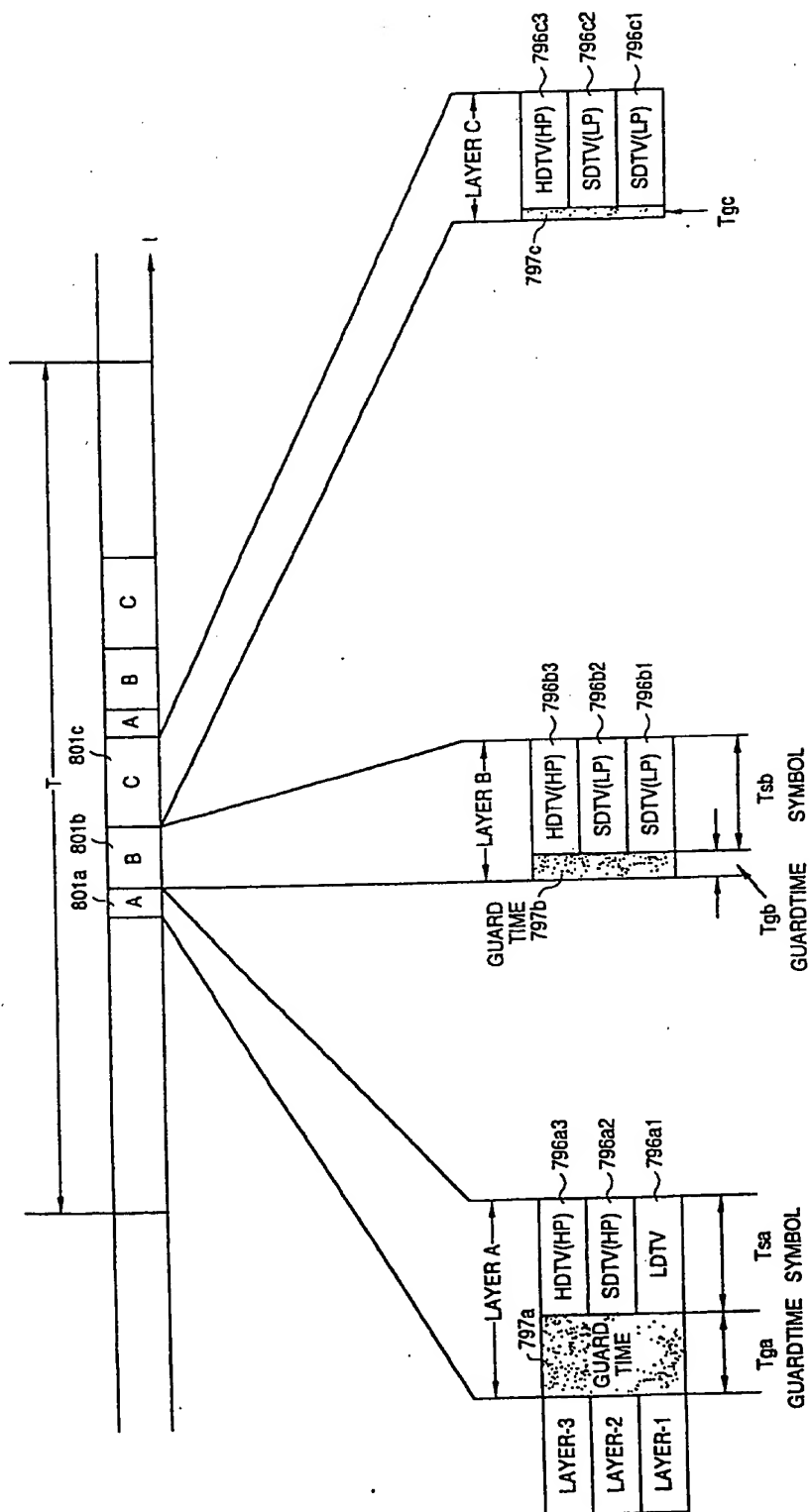


FIG. 156

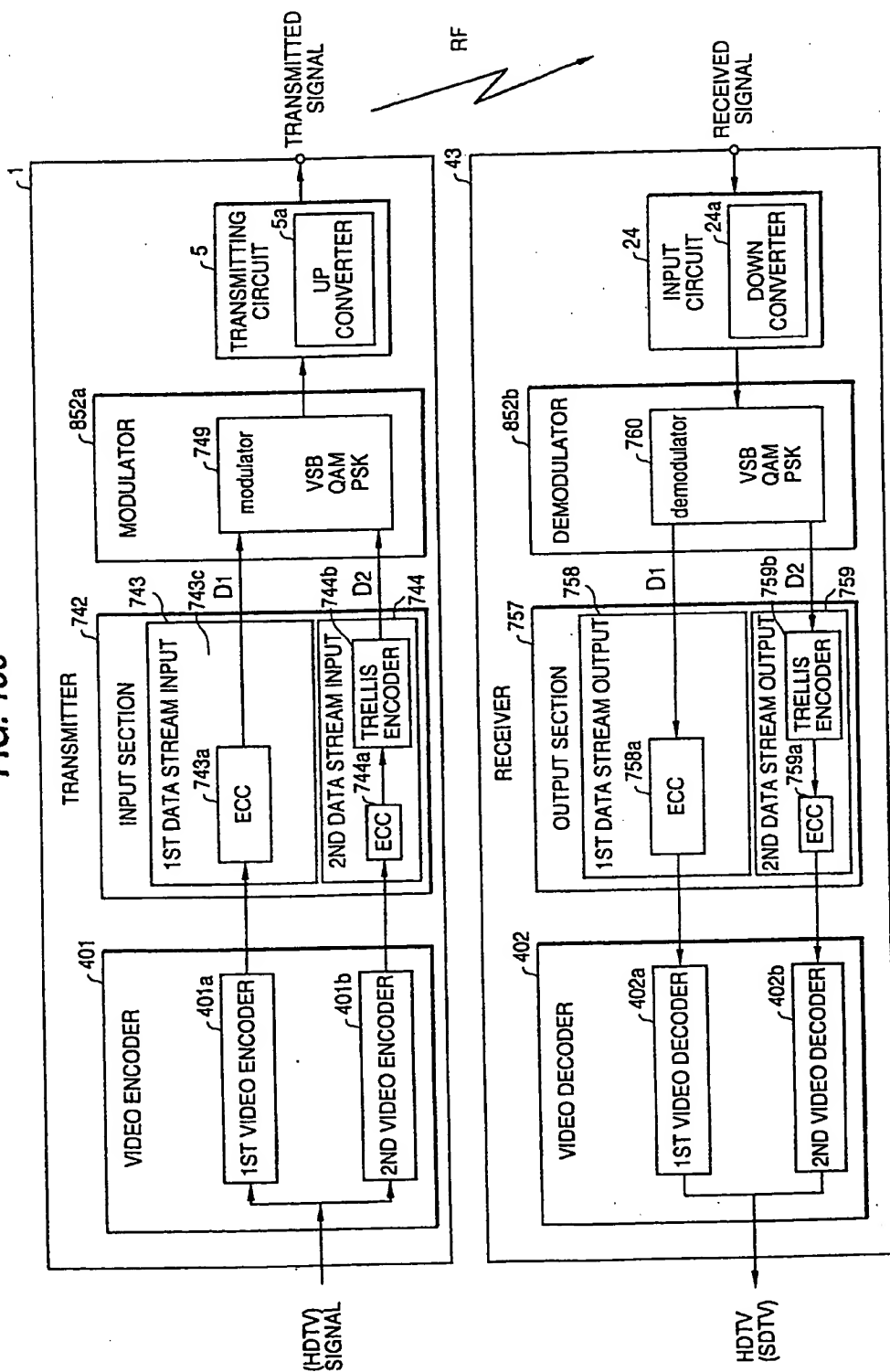


FIG. 157

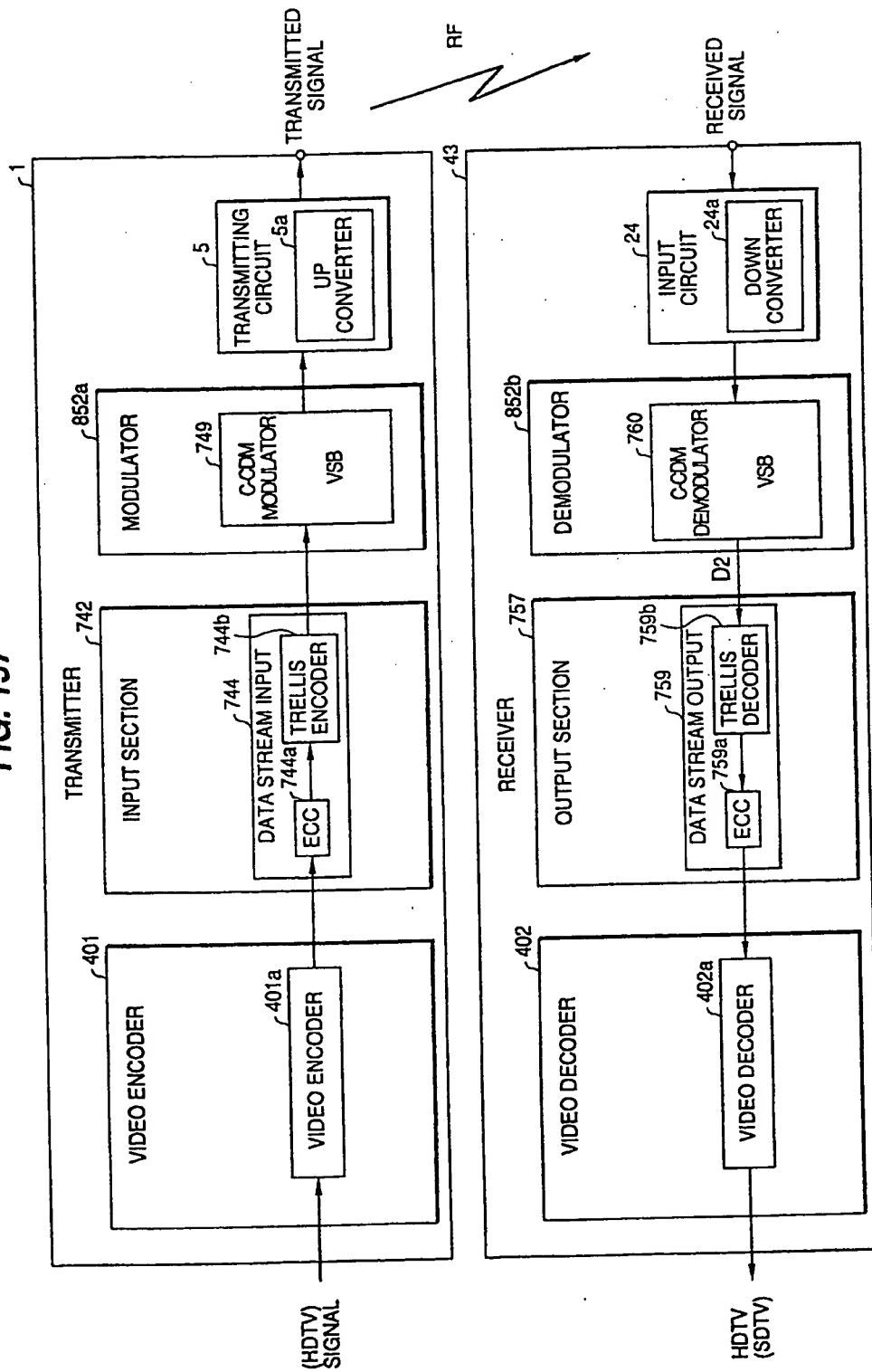
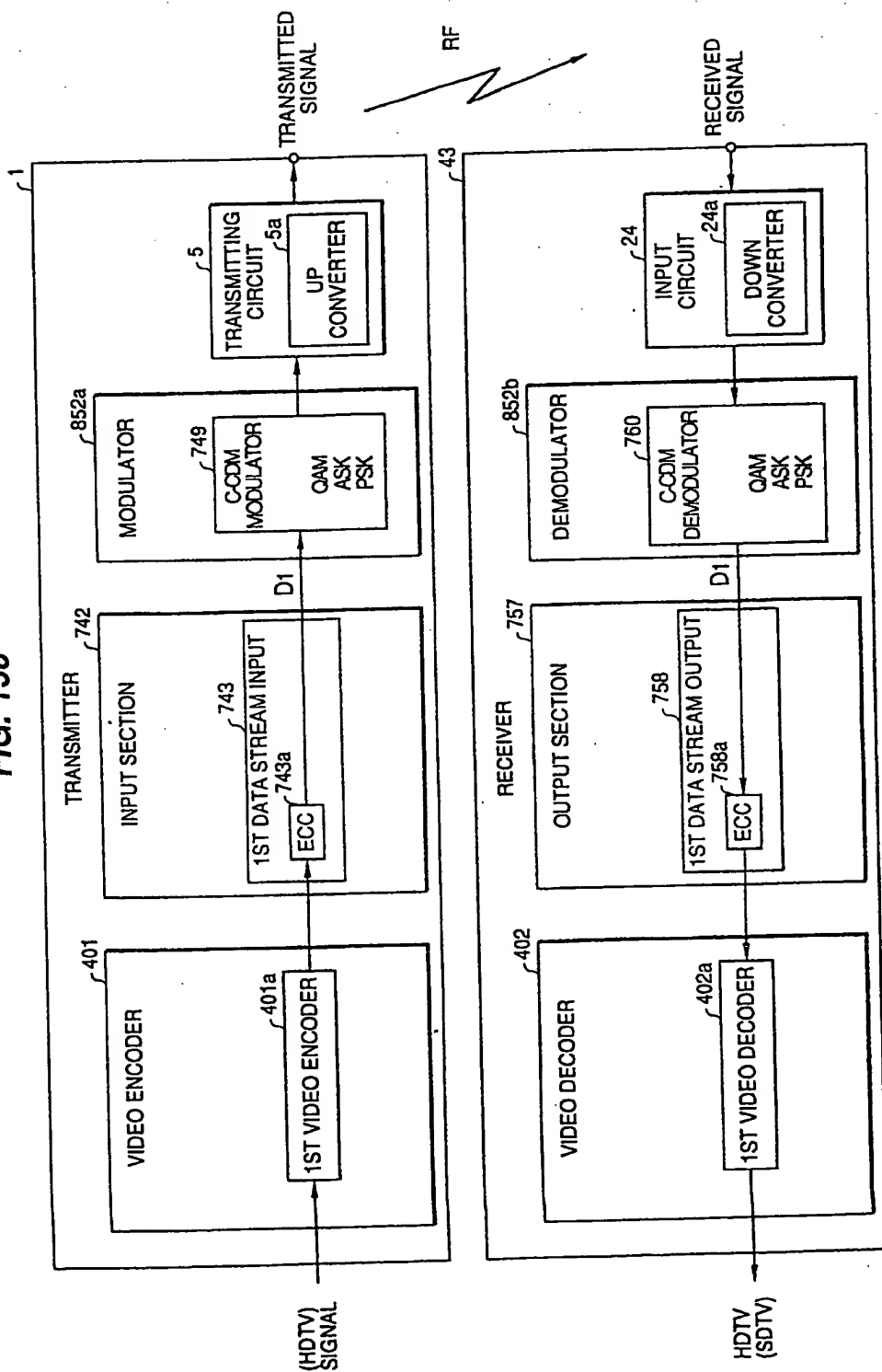


FIG. 158



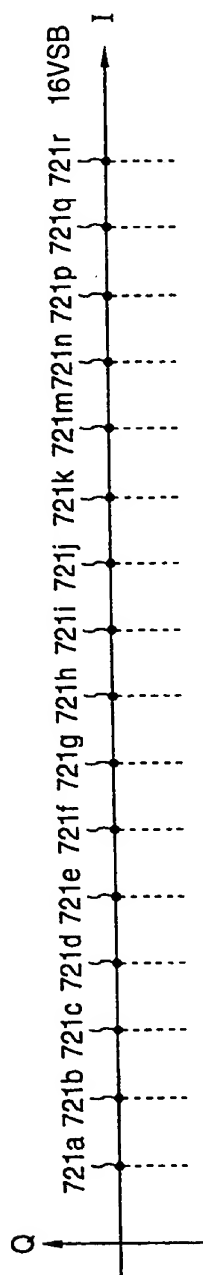


FIG. 159(a)

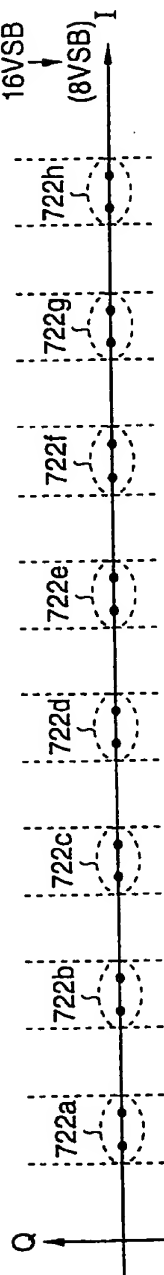


FIG. 159(b)

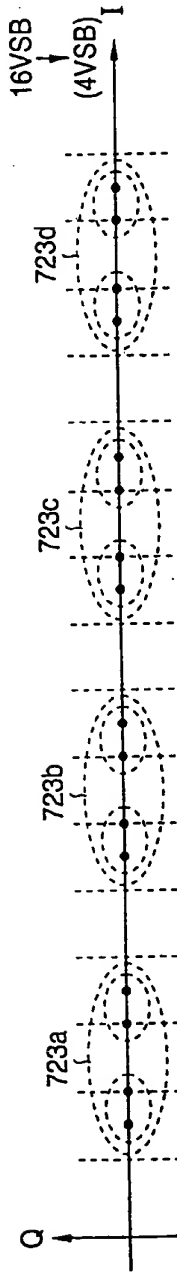


FIG. 159(c)

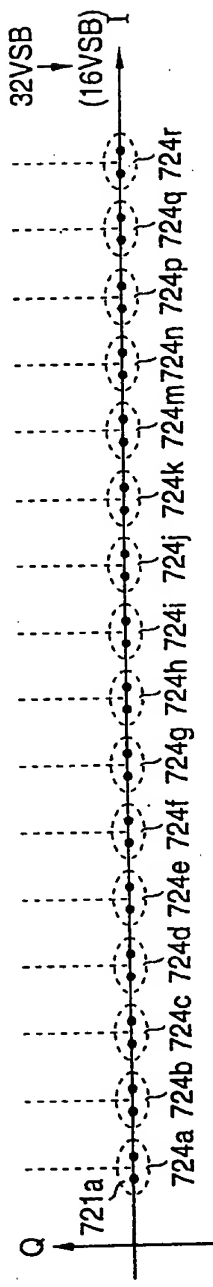


FIG. 159(d)

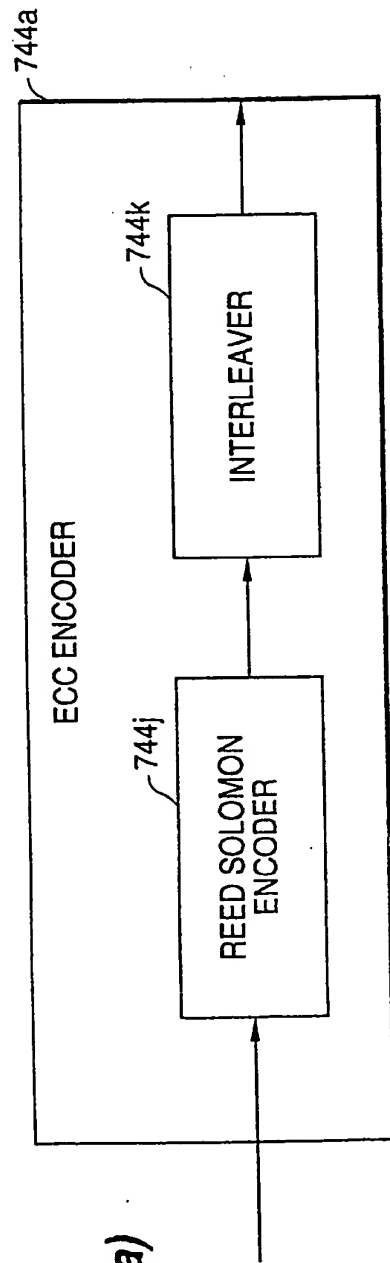


FIG. 160(a)

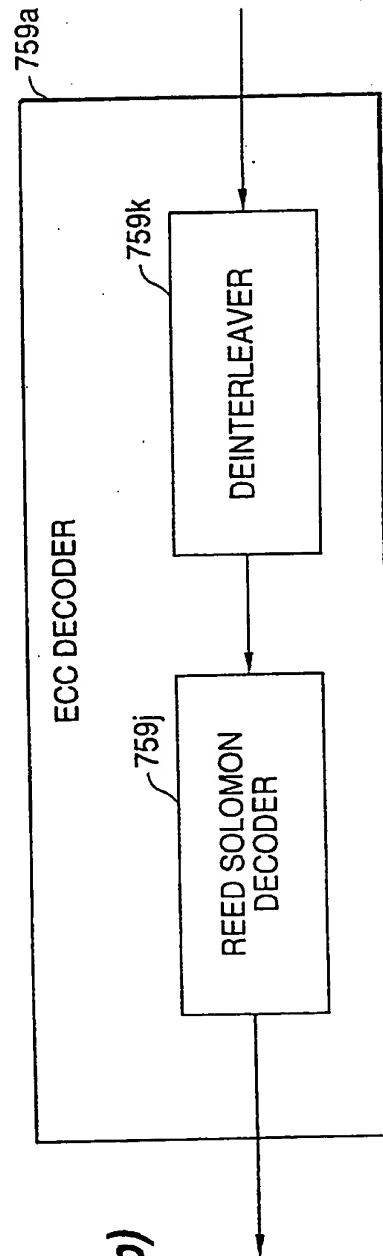


FIG. 160(b)

FIG. 161

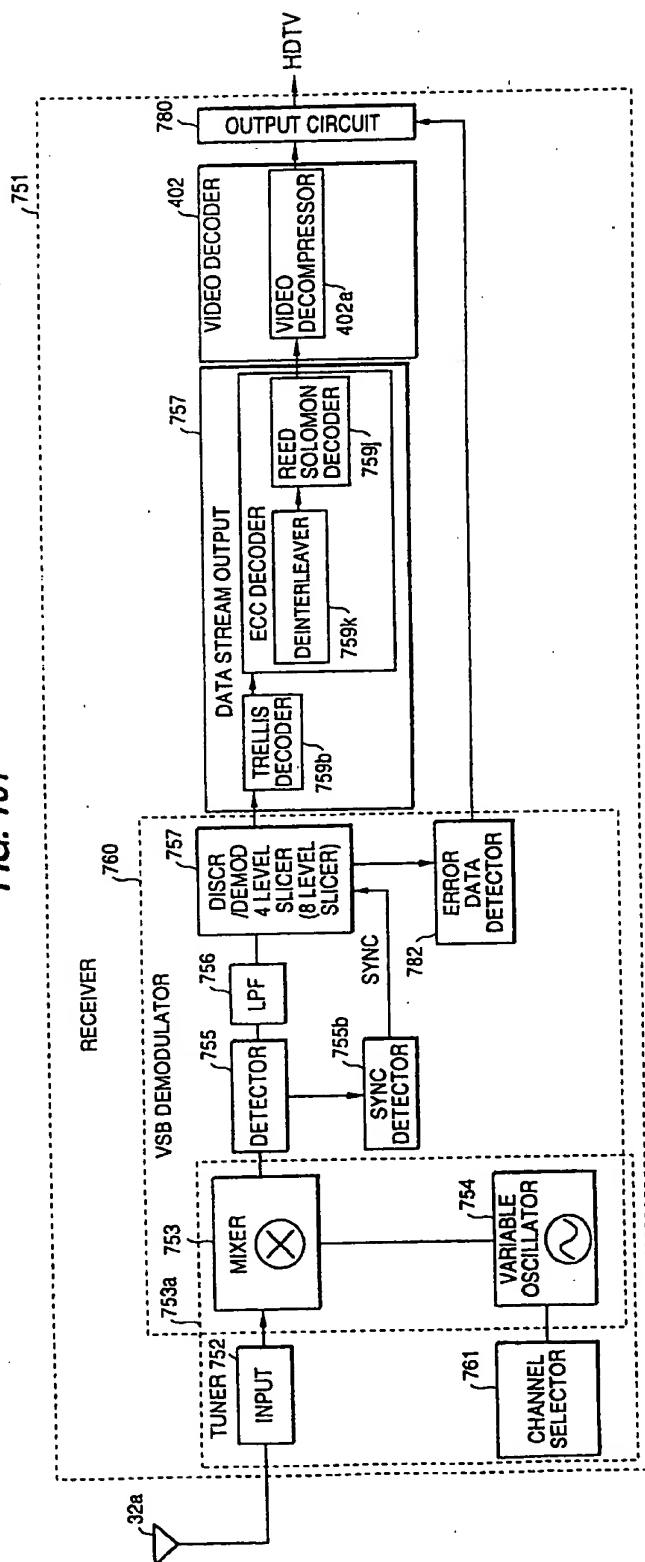


FIG. 162

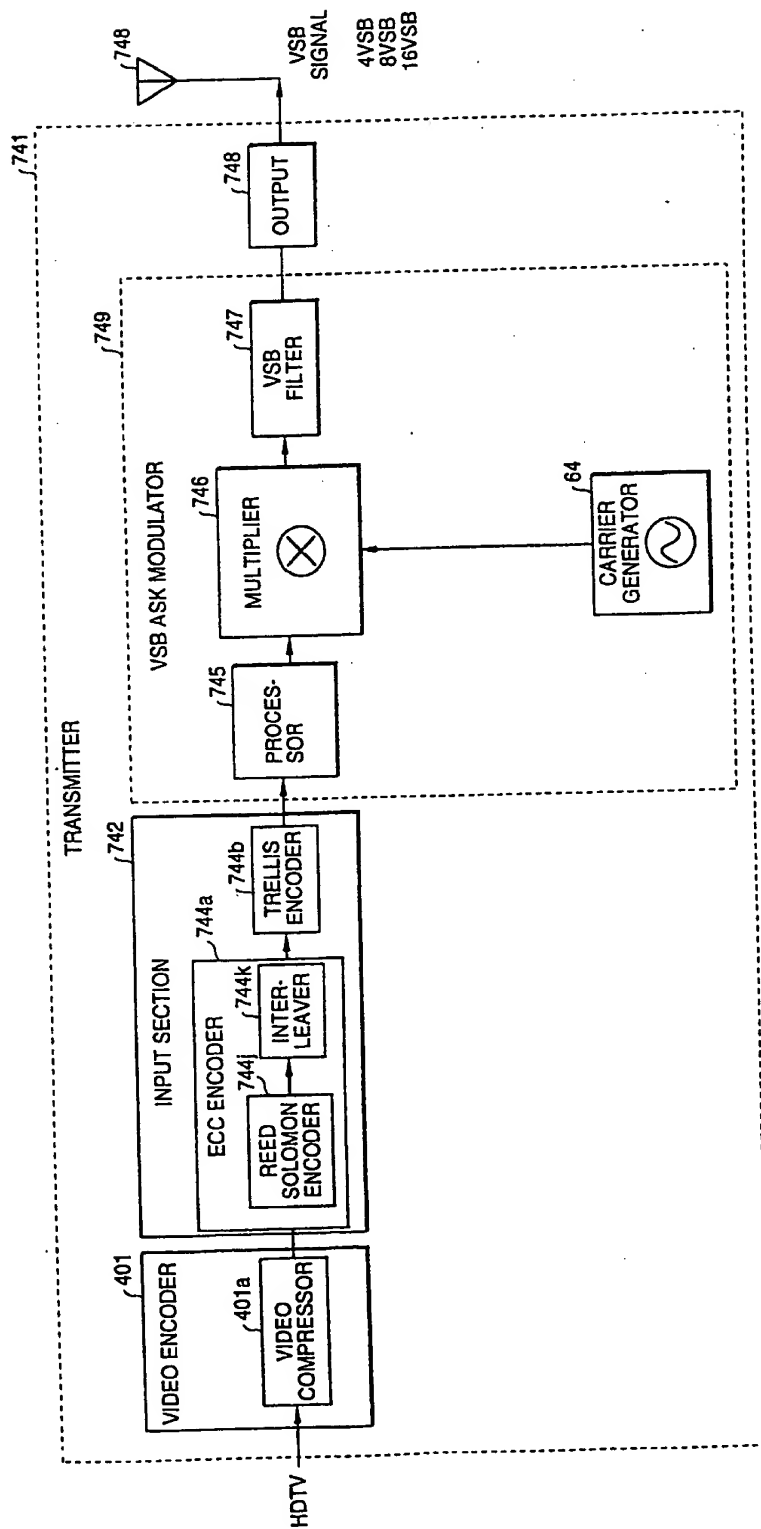


FIG. 163

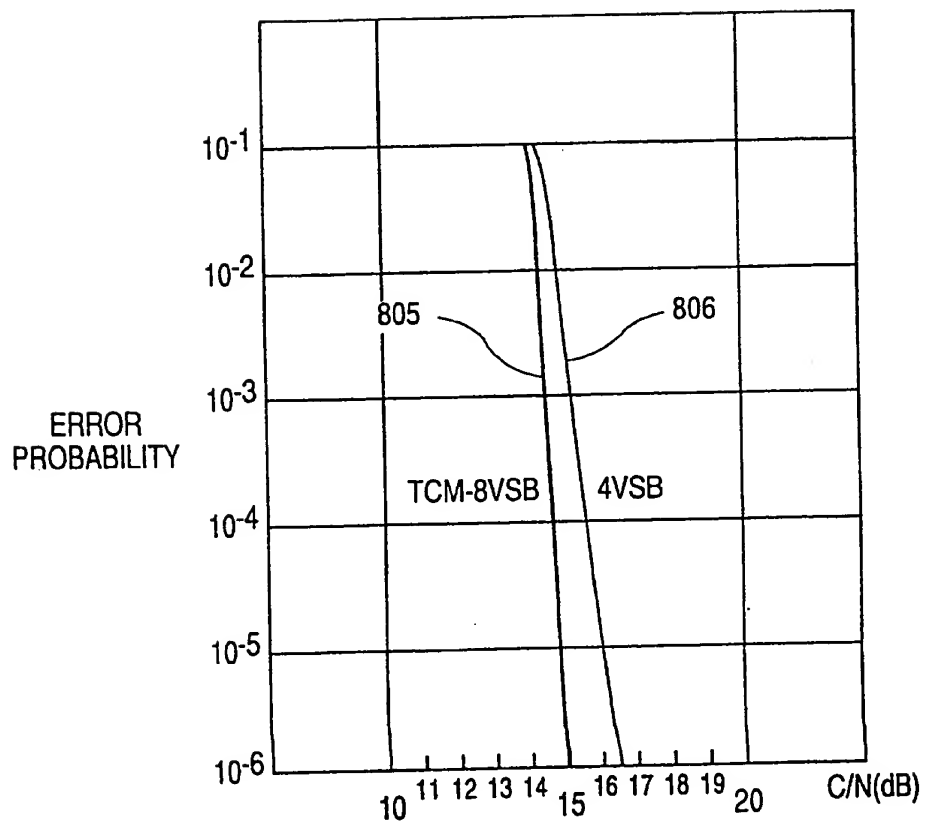


FIG. 164

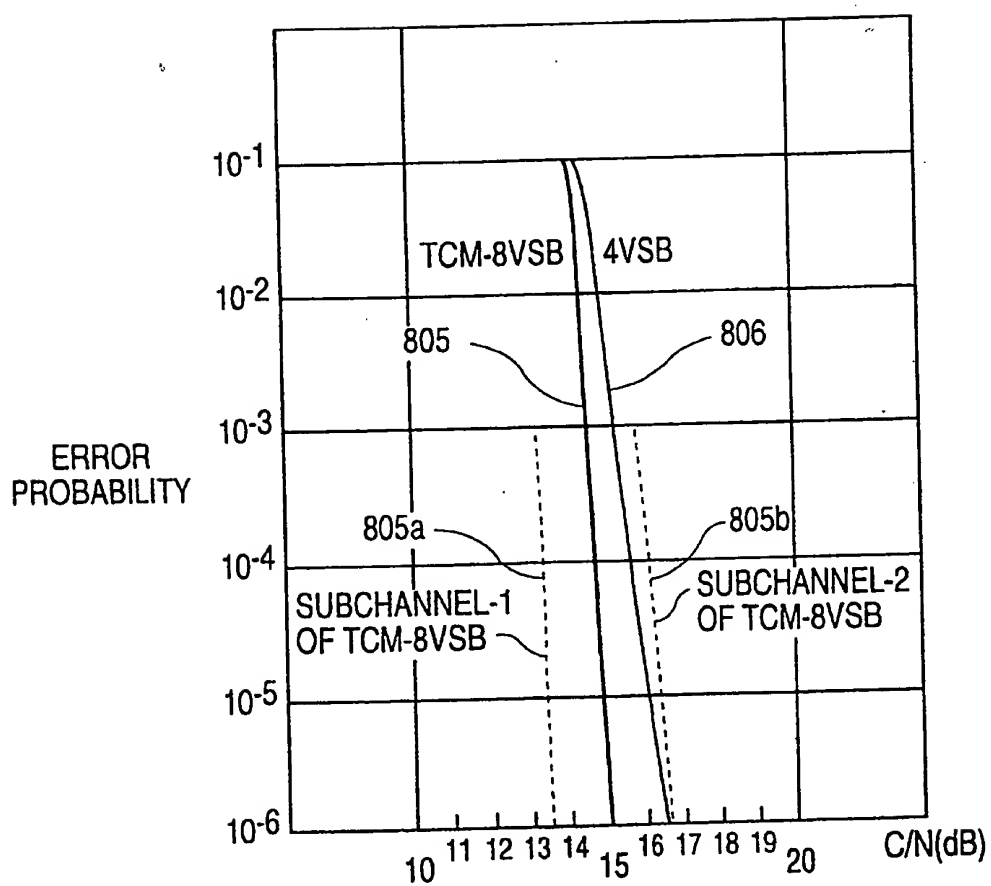


FIG. 165(a)

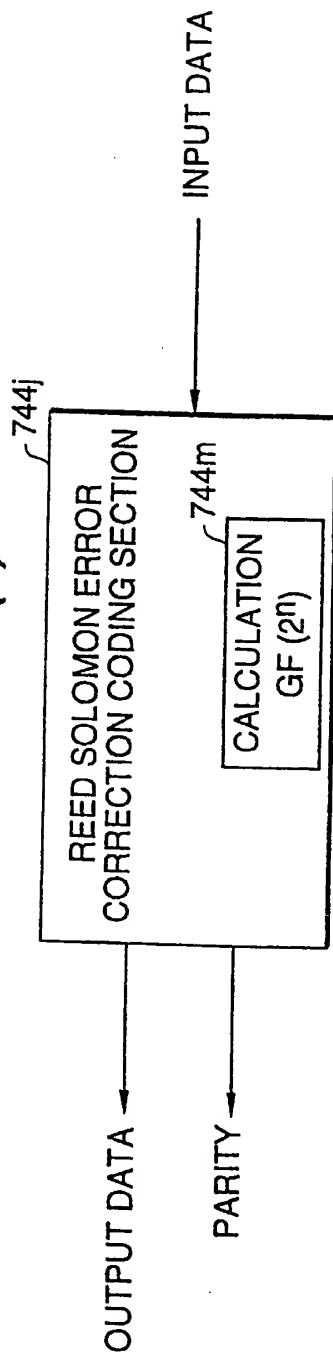


FIG. 165(b)

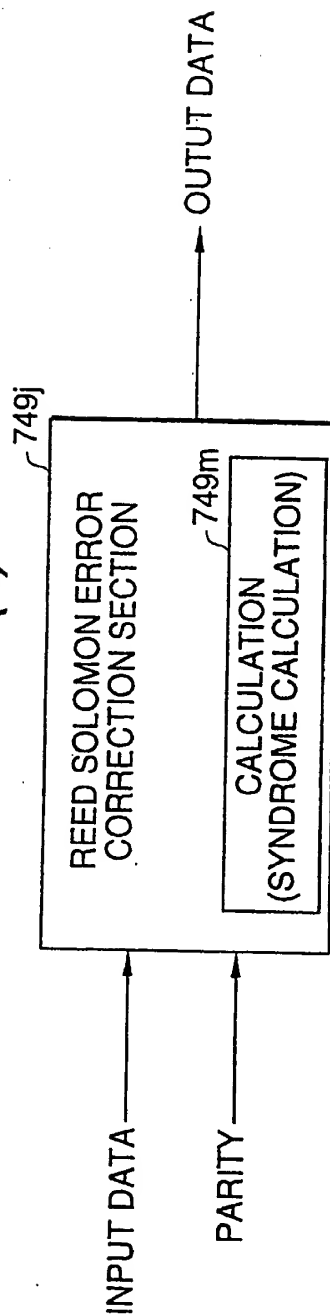


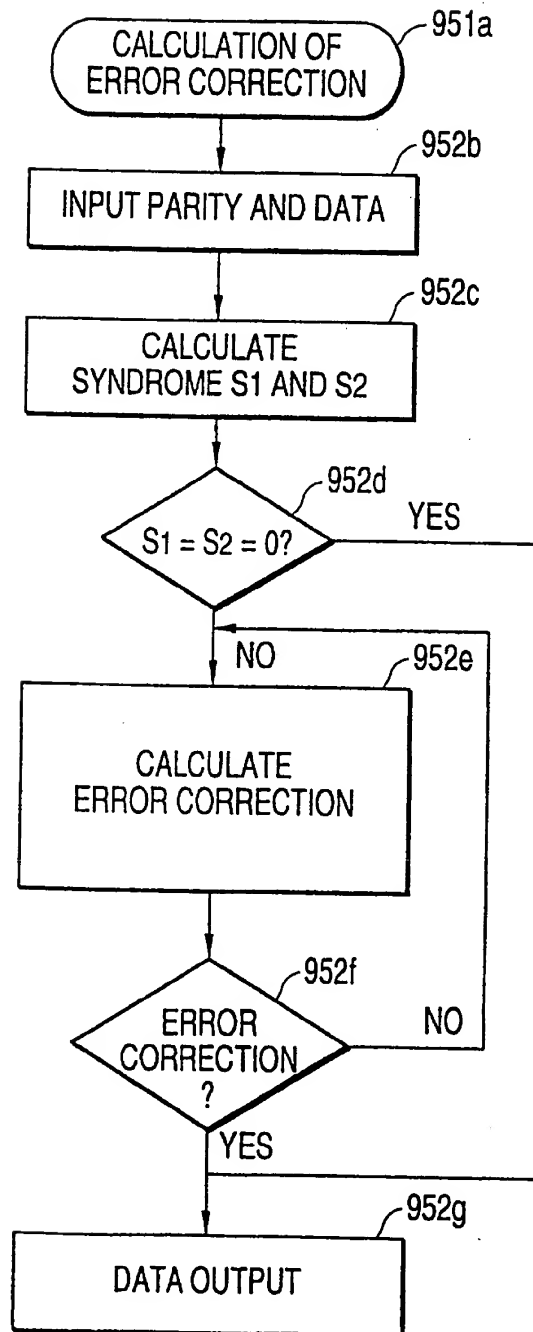
FIG. 166

FIG. 167

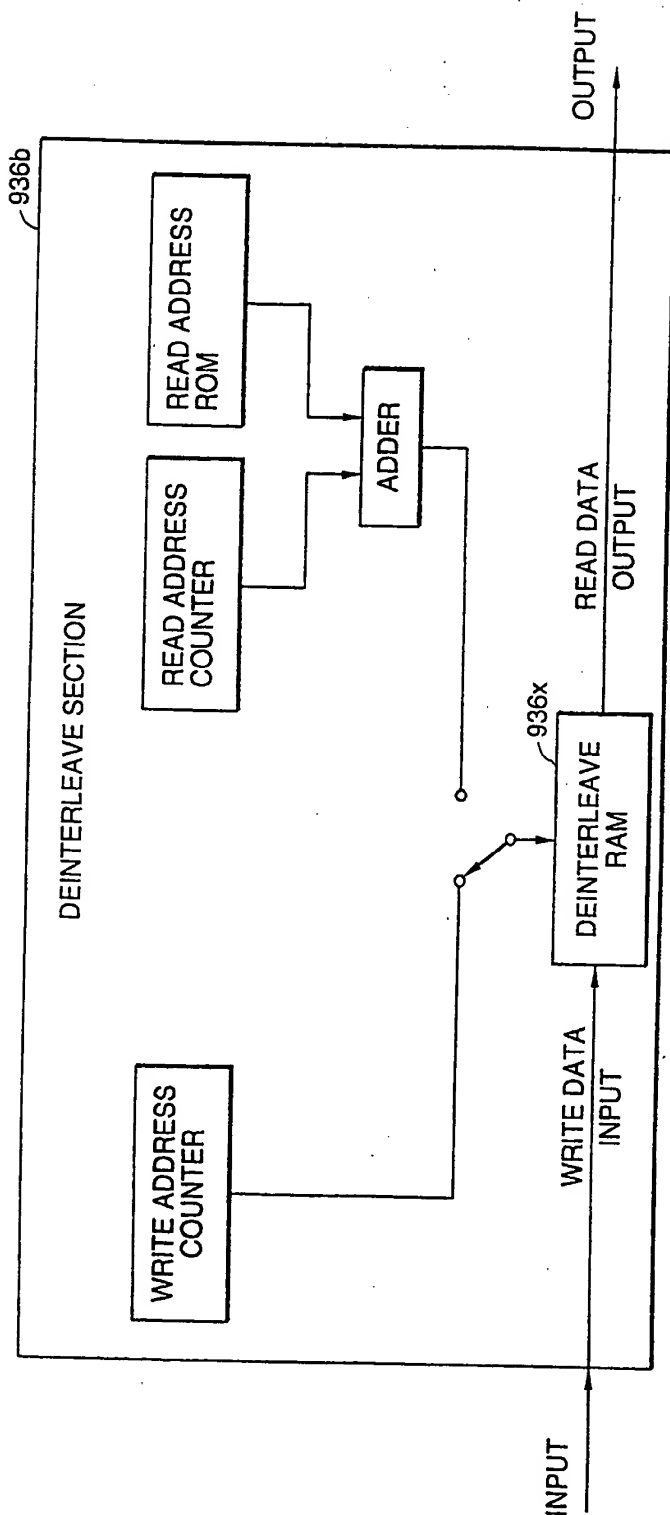


FIG. 168(a)

INTERLEAVE TABLE

1	2	3	4	5	6	7
DATA						C2 PARITY
1	A 1	A 2	A 3	A 4	A 5	A 6
2	B 1	B 2	B 3	B 4		
3	C 1					
4	D 1					
5	E 1					
6	F 1					
C1 PARITY	PARITY	PARITY	PARITY	PARITY	PARITY	PARITY

951b points to the first column of data (A 1 to F 1).
954 points to the C2 PARITY column.
951a points to the A 6 cell.

FIG. 168(b)

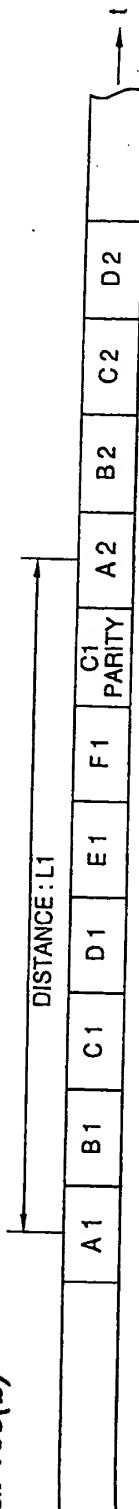


FIG. 169

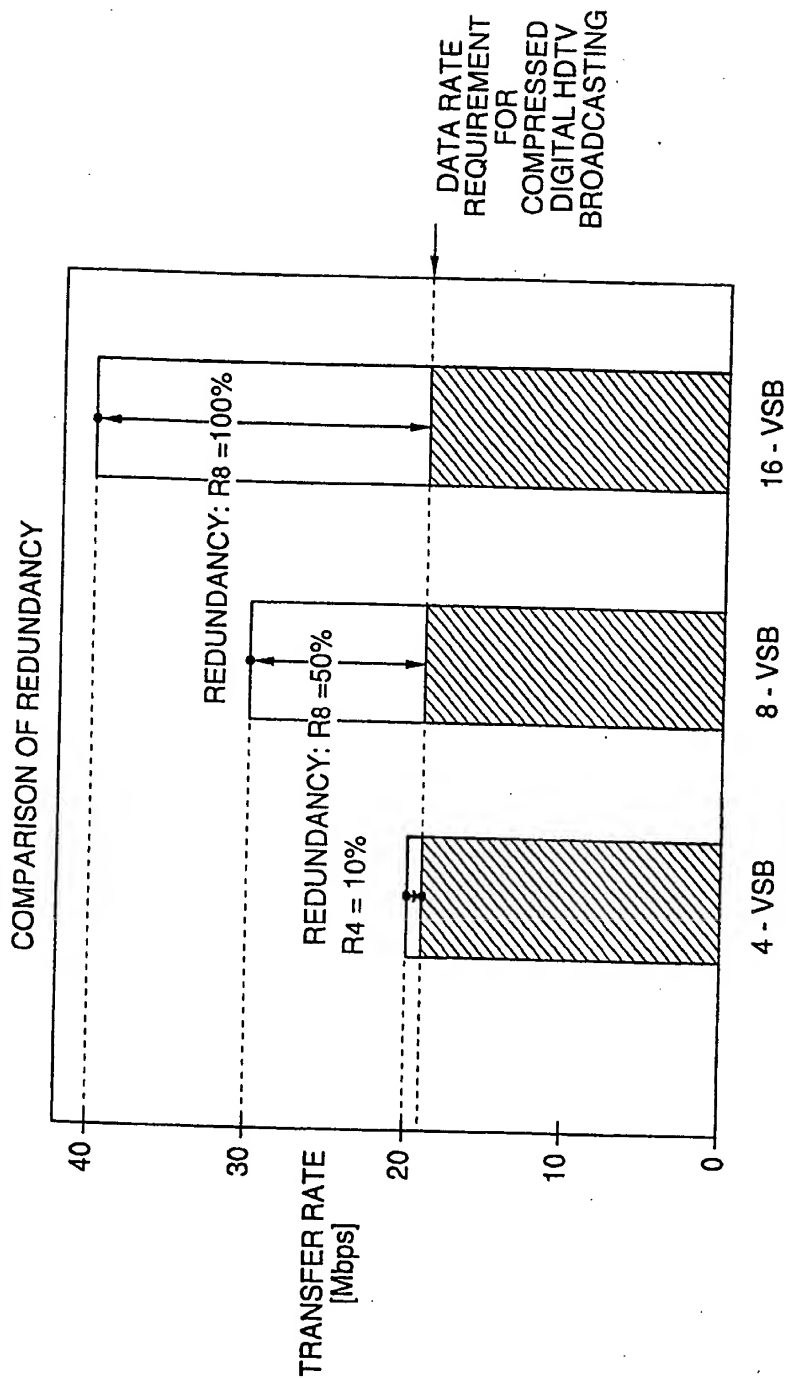


FIG. 170

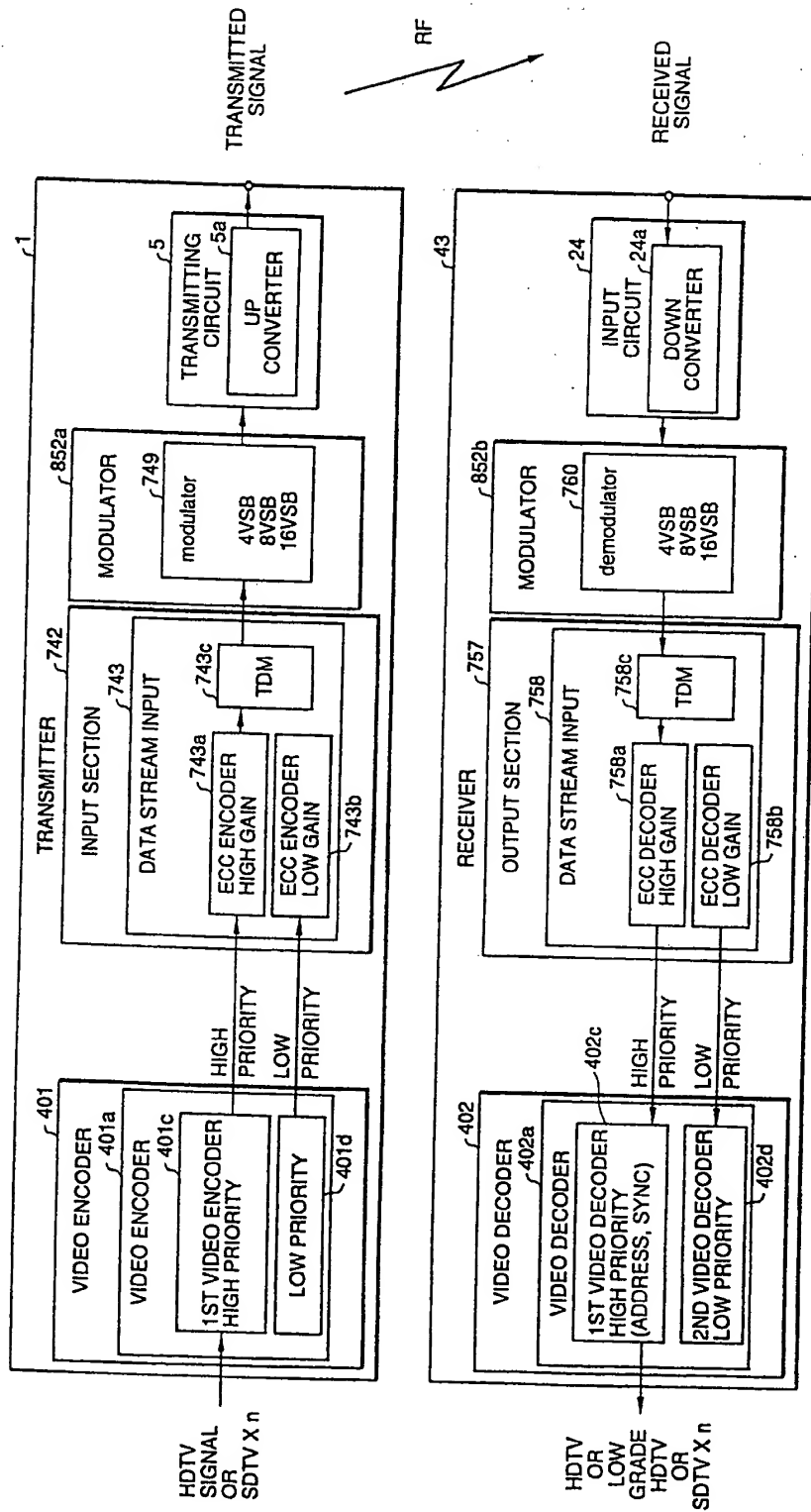


FIG. 171

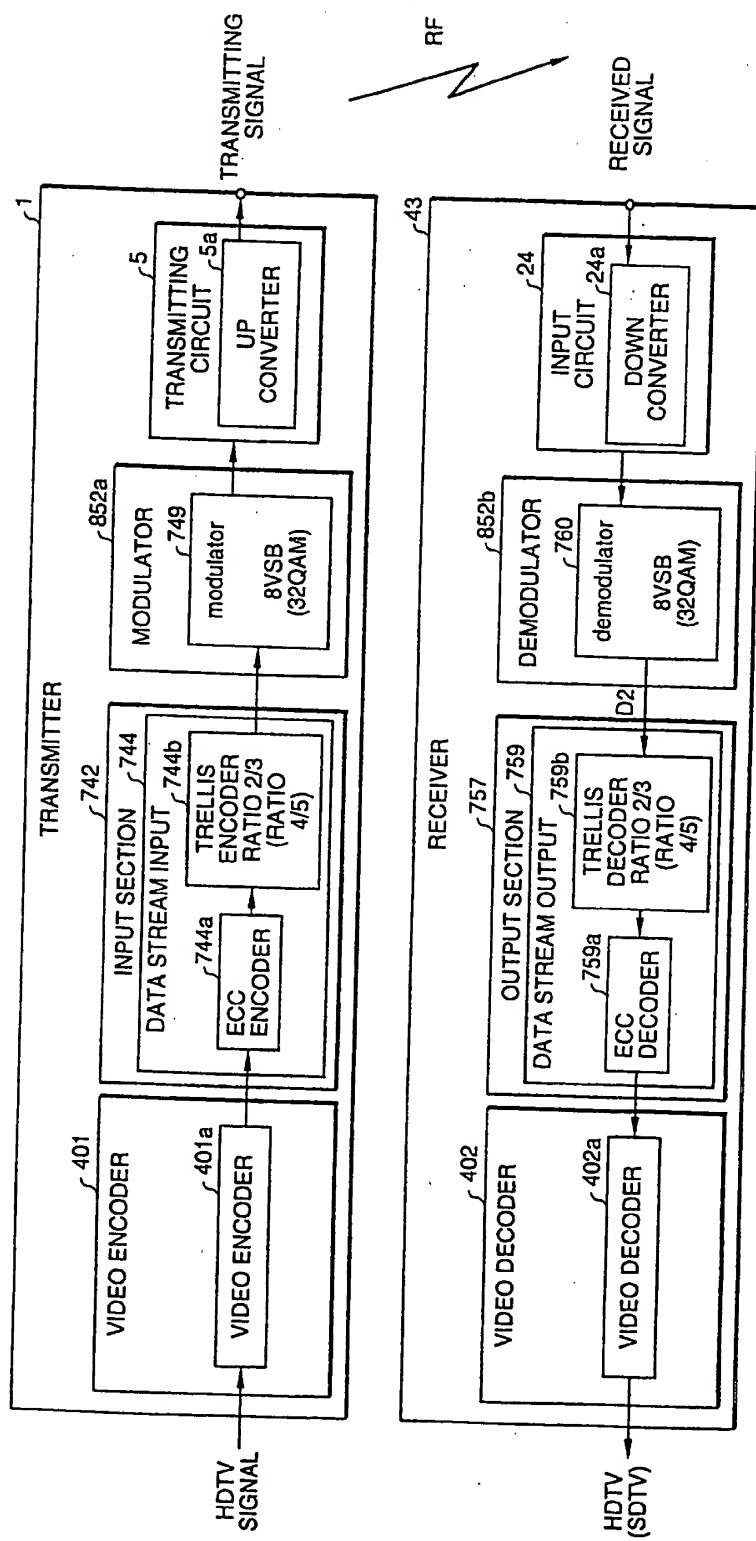


FIG. 172

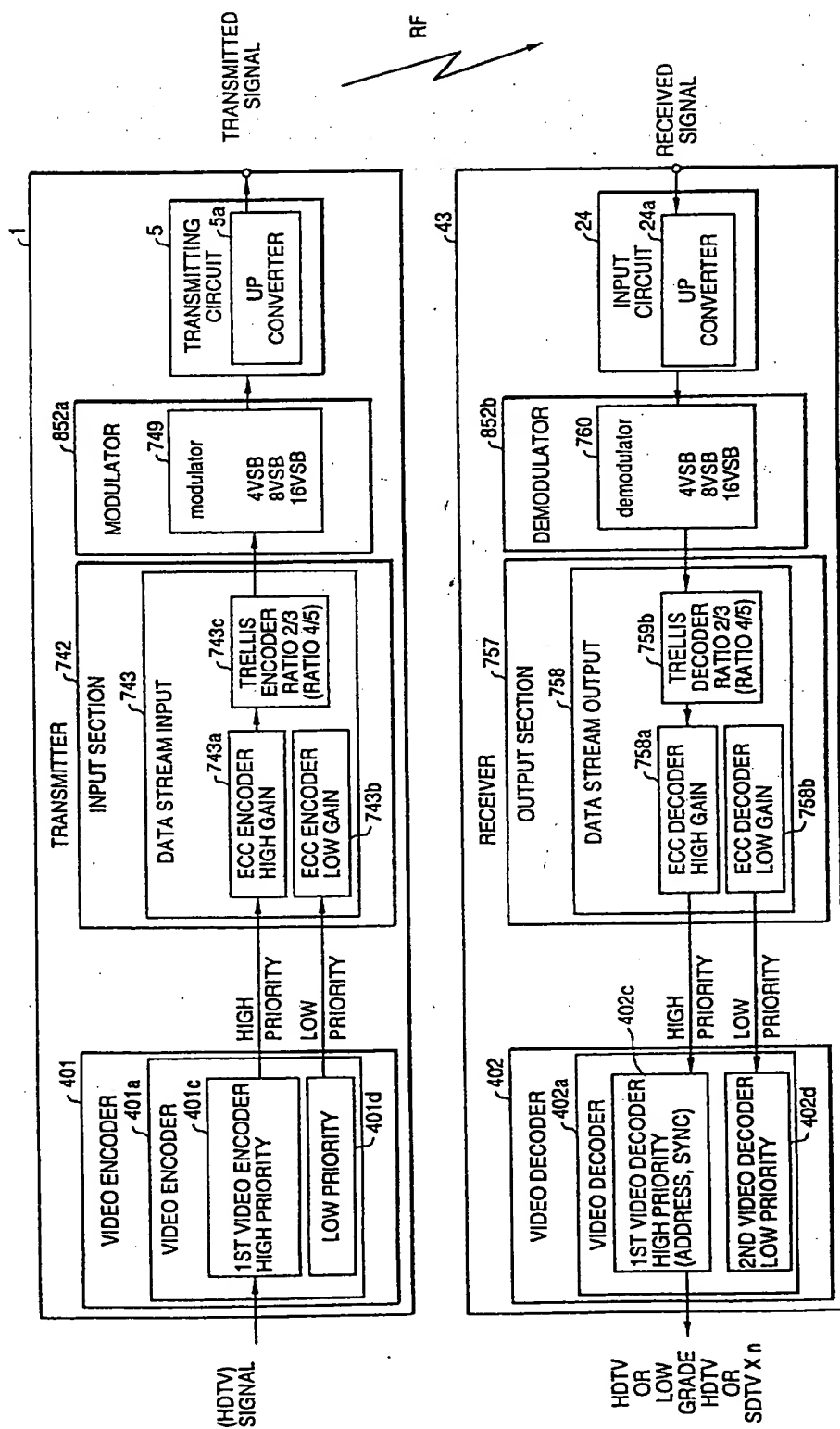


FIG. 173

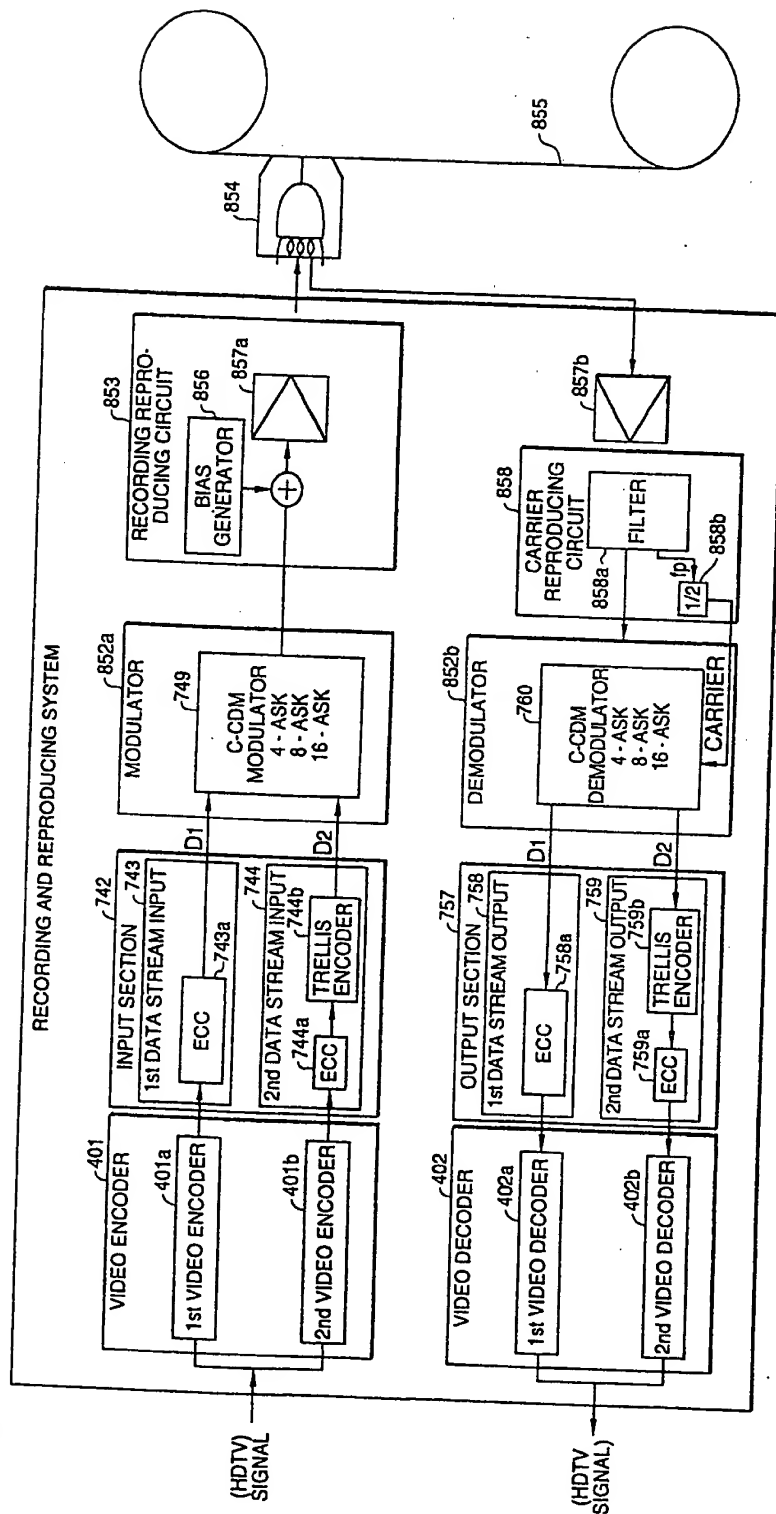


FIG. 174

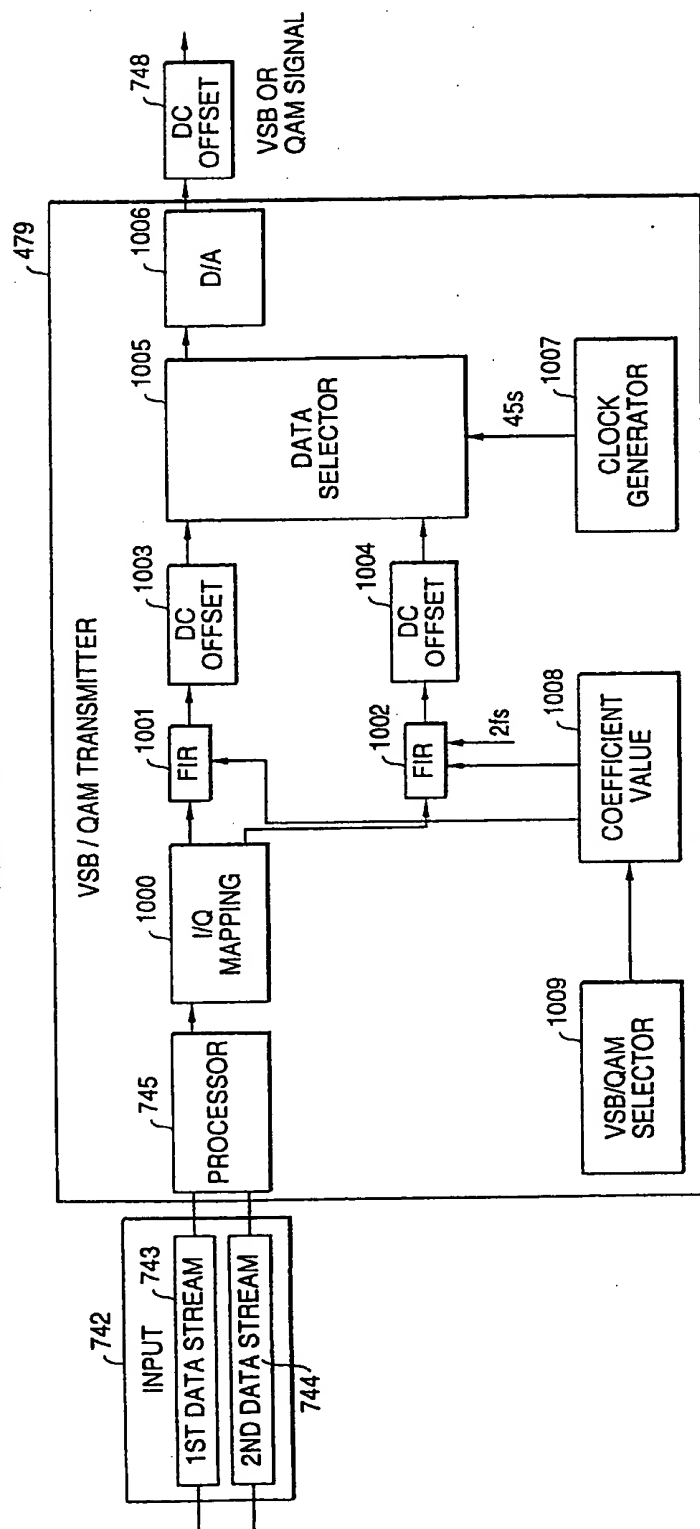


FIG. 175

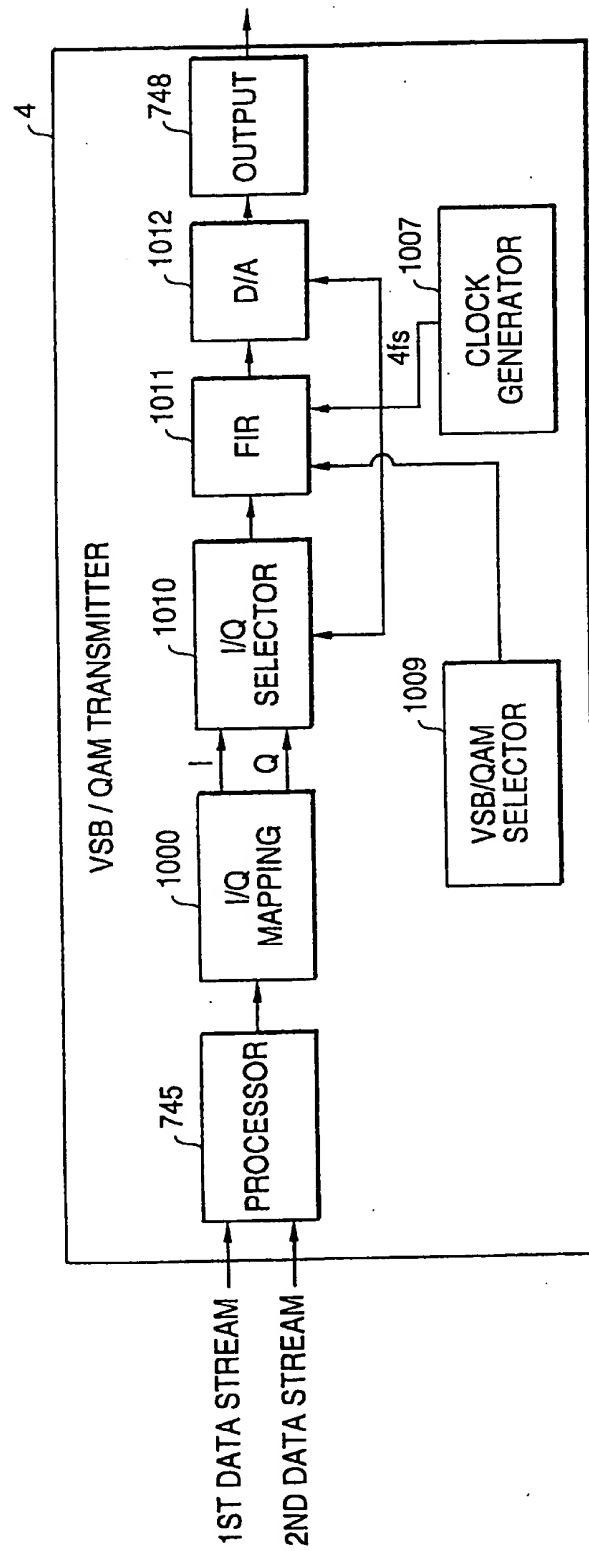


FIG. 176

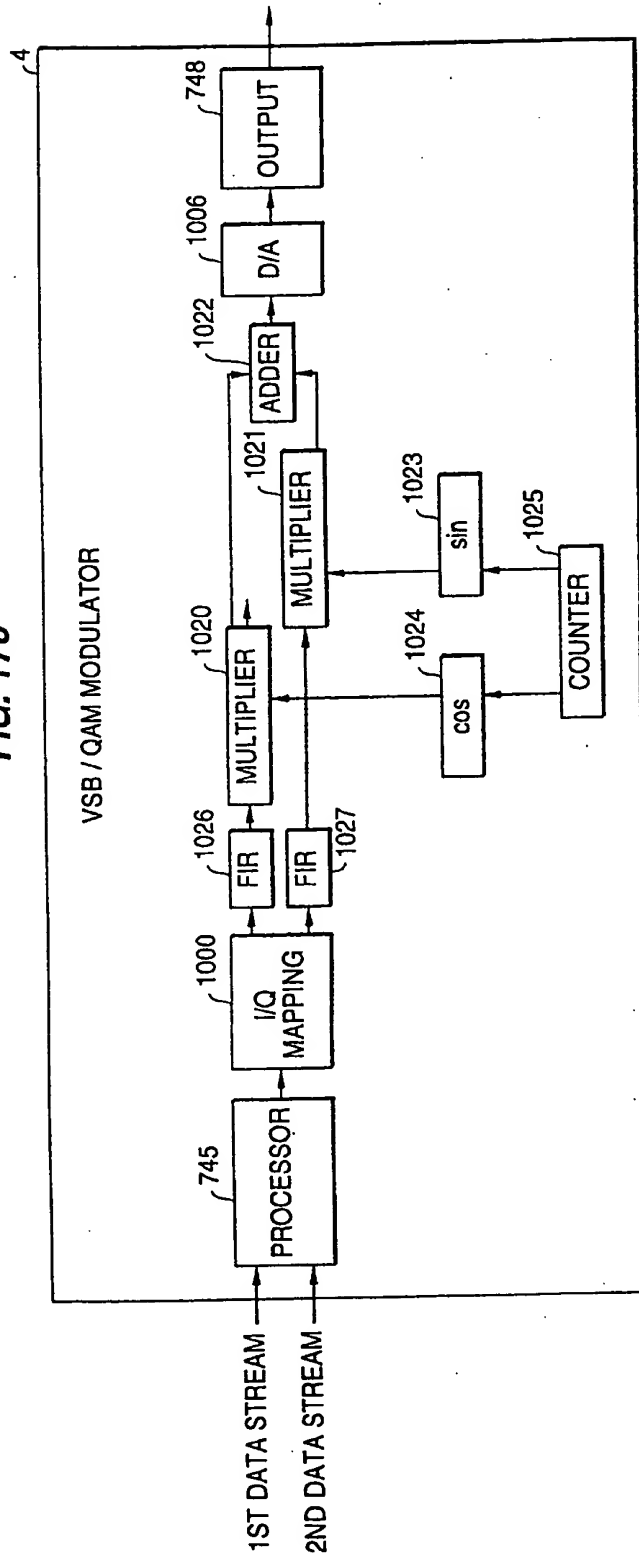


FIG. 177

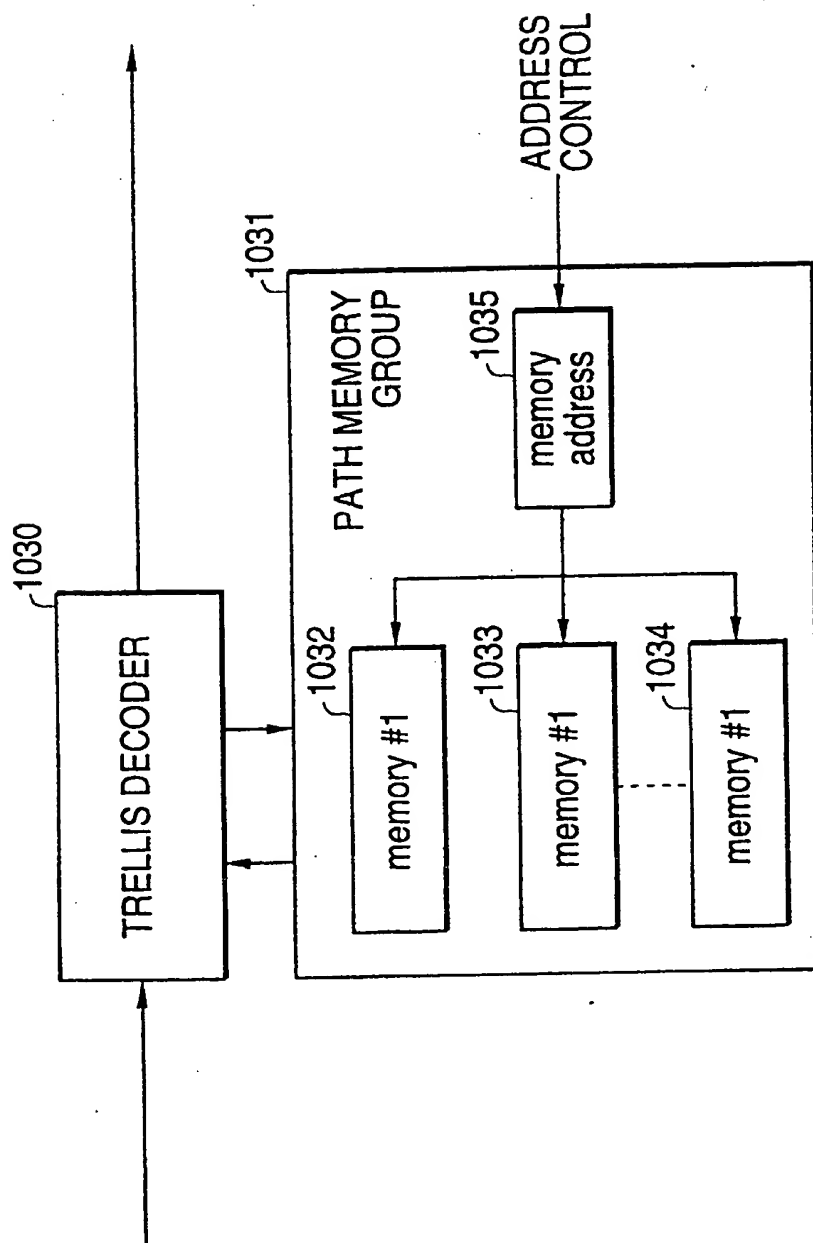


FIG. 178

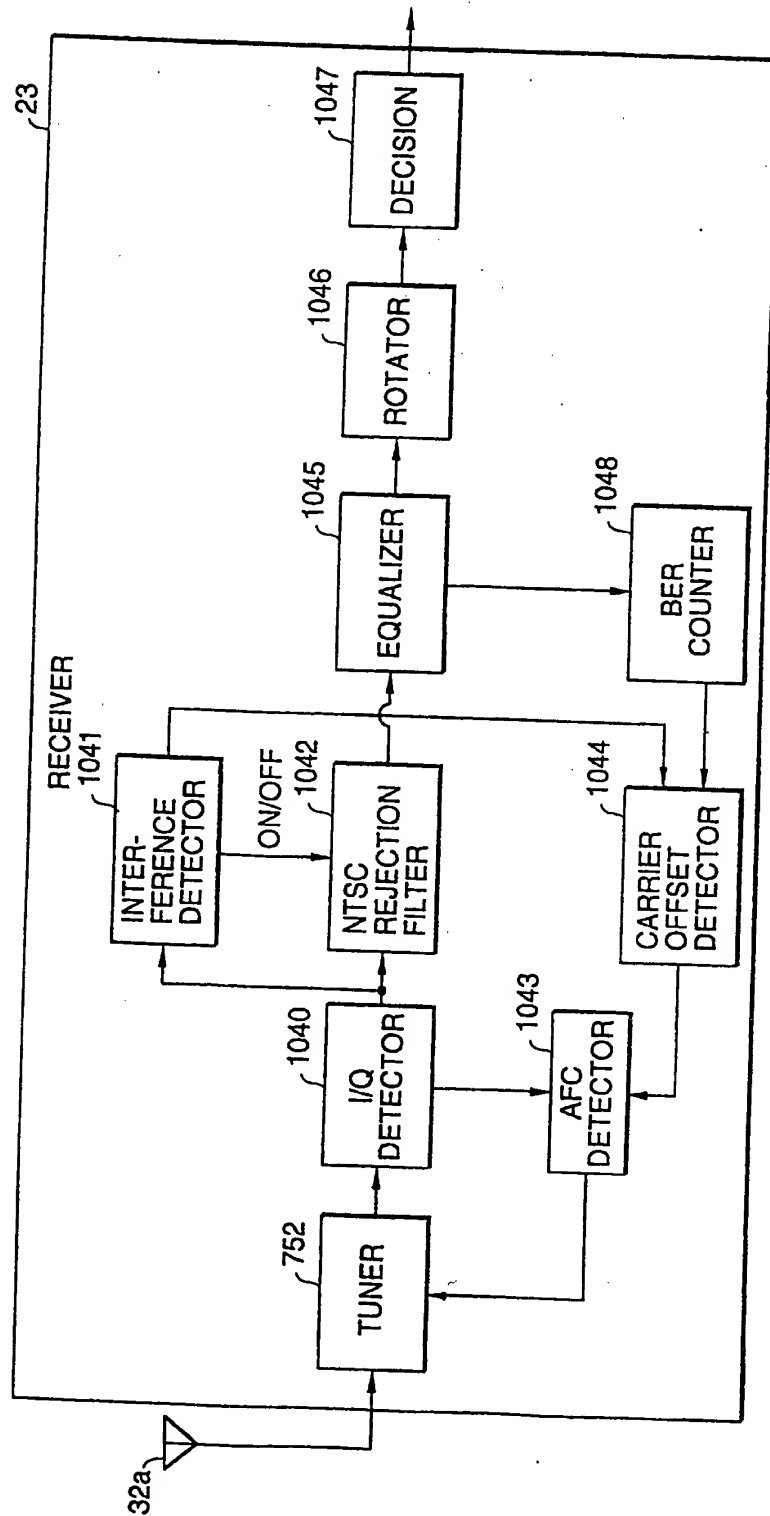


FIG. 179

